AND HOME COMPANION

VOL. XX. No. 5.

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ROCHESTER, N. Y., MAY, 1900.

Monthly, 50 Cents a Year.

OUR HEALTH DEPARTMENT

Easter.

Written for Green's Fruit Grower by N. A. Trussell.

Thrice glad the morn
When Christ was born,
In Bethlehem far away;
Yet deeper still
The joys that fill
Our hearts on Easter-day.

Since Eden old Grim Death did hold, O'er earth, relentless pow'r; On Easter-day Christ broke his sway, Gave Man a conqueror's power.

Come forth, New Life, With goodness rife, Bid care, grief, doubt, "Be gone!" Live from the heart, Not act thy part,— Thus deeds are nobly done.

Ringworms,

Some time ago a physician noticed that a great many children suffering from ring-worm lost this troublesome complaint at the seaside, the bathing, added to the sea air, apparently bringing about the cure. After this the physician tried the effect of a strong solution of common salt and water on those cases which came under his notice at home. The result was that in about a month a cure was wrought. The salt and water was applied at night, and was washed off in the morning with a solution of boric acid. This remedy has the advantage of being both safe and simple, and may be tried by any mother.

Care of the Teeth.

Editor Green's Fruit Grower:

Many of the preparations and lotions purchased from druggists for cleaning the teeth are positively injurious, and their use should be avoided. An excellent, simple dentifrice can be made at a very small cost by every woman who wishes to keep her teeth in good condition. It consists of a mixture of equal parts of pulverized charcoal and powdered borax, scented with two or three drops of oil of cloves. Another preparation of borax and orris root will not only be found to clean the teeth and mouth chemically, but will correct acidity of the stomach and sweeten the breath. A simple wash of salt and water will harden the gums, but should not be used too frequently. As a rule, clear, cold water should used regularly for brushing the teeth, and the cleaning preparations and lotions plied two or three times a week.-Eliza

Home Made Liniments.

It is difficult to find a liniment that will be of more general usefulness than simple camphorated oil or camphor liniment as it often called. It is valuable for rubbing on the outside of the throat or on the chest as a gentle stimulant, or it may be used in case of chronic rheumatism, where it must be applied with friction to give any relief. It may be purchased of the druggist, or it may be prepared at home by dissolving one ounce of gum camphor in four fluid ounces of olive oil. In case of a severe cold a piece of flannel dipped in camphor liniment and heated and laid over the chest under a layer of cotton batting will seldom fail to bring relief to a little child or even to an older person. Ammonia liniment is a more powerful stimulant to the skin. It is made by mixing half an ounce of spirits of ammonia with an ounce of olive oil and shaking in a bottle until they are mixed. Apply it with the palm of the hand, using abundant friction.

A compound liniment which is recommended for rheumatism and "numbness" is made of two and a half ounces of gum camphor, one dram of oil of lavender dissolved in seventeen fluid ounces of alcohol. After this add three fluid ounces of a trong solution of ammonia and shake the ingredients thoroughly together in a bottle. Keep it closely corked when not in use. A good liniment for bruises and strains is made of two fluid ounces of alcohol, two fluid ounces of ammonia and two tablespoonfuls of salt. Put these ingredients in a quart bottle and fill it with rain water; shake the bottle every time this liniment is used. Apply it with friction, using the palm of the hand as the massage nurse does. The efficacy of almost any of the liniments depends considerably on the care and zeal with which it is applied. In all cases the skin should be covered with flannel and often with cotton batting after the liniment has been applied, as it is desirable to keep in the heat of the rubbing. A good healing liniment for chafed skin, irns or scalds is made of three ounces of spermaceti and one ounce of white wax melted into a pint of olive oil by setting them in a bottle uncorked in a pan of warm water, and repeatedly shaking the bottle, returning it to the warm water until the ingredients are all melted together. -N. Y. Farmer.

March Colds.

The colds that arise from the damp ground and chill, harsh winds of March are especially likely to affect the delicate bronchial tubes or produce that most deadly of American diseases, pneumonia. Croupy colds and coughs are therefore common in the first month of spring. Prevention in this case, as in most others, is better than cure. Children who go out in March weather must be carefully protected. During the frequent wind and dust storms that usually occur in this month little children and delicate persons should stay within doors, and women who are compelled to go out should protect themselves with stout veils. After the shutin period of winter every one is somewhat deficient in vitality and more likely to take cold. It is essential that the feet should be thoroughly protected from dampness by stout, thick-soled shoes and light India rubbers. Leaking rubbers are worse than none. A great deal might be said about the vicious practice of collecting old rubber overshoes and manufacturing them over again. India rubber is a vegetable material that disintegrates with age, and shoddy rubber shoes made of old rubber very soon fall into pieces. It is better to depend upon stout soled calfskin shoes without extra rubber overshoes than to wear rubbers that let in the dampness by

cracks and keep the feet wet. The shoddy overshoe is responsible for many danger-ous March colds. Children are eager to get out in the March sunshine, and if there is no whirlwind of dust blowing, and they are properly protected, they should go out as much as possible. Every run in the pure outdoor air helps to strengthen them against the presence of colds. See that they sleep in well ventilated rooms. The possible danger that may arise from the dampness of the air at this season is incomparably less than the danger of reducing the strength and vital powers by breathing impure air. The atmosphere in a sleeping room is impure when there is no current of fresh air flowing in.

Watch children's feet carefully, no matter how well they are shod; they may manage to get their feet wet. There is not nearly so much danger while they are exercising outdoors in the pure air as there is for them to keep wet shoes on after they come in. Remove their shoes as soon as they come in and if there is the least dampness about their stockings put on warm, dry ones, as well as warm, dry shoes. If the feet are very wet, let the child soak them about ten minutes in water as warm as the child can bear, rubbing them afterward with the hands and a little alcohol and water until the skin is red. This prevents the danger of a chill from this source, which is the precursor of croup or pneumonia. A cold in the head is a comparatively harmless cold. but a cold that settles in the lungs, or, as it generally does at the beginning, in the

When a person shows signs of the begin ning of a hoarse cold, it may be broken up by prompt measures. Try to induce a per spiration by soaking the feet in hot water in which a tablespoonful of mustard has been dissolved. Keep the patient well wrapped up in blankets during this foot bath. Give as much hot flaxseed lemonade as the patient will drink. If there s any chilly, painful sensation across the lungs, put a mustard plaster between the shoulders and one across the chest. Let the sufferer go to bed at once under abundant cover, in a bed that has been well heated by hot bricks wrapped in newspapers or hot water bottles. A doctor would probably give an adult six grains of quinine to help break up such a cold. It is hardly wise to administer this medicine without the advice of a physician, as quinine affects different persons different-ly. The dose for a child over six years

bronchial tubes, is one to be dreaded.

of age is half that for an adult. It is followed for three days by a tonic dose of wo grains for an adult or one grain for child, given three times a day. A child under six years of age is too young for To break up a croupy cold, give a child

a laxative medicine—castor oil is a safe one. Cover the chart and the tween the shoulder blades with hot flannels dipped in goose grease or olive oi and sprinkled with camphor. They should be heated as hot as they can be borne. Try to induce perspiration by hot blankets mustard. Keep the warm .- Tribune.

Personal Experience.

Editor Green's Fruit Grower:

A year ago I sent to Rochester, N. Y. an order for fifteen fruit trees, besides grape vines, and small fruits. I wish to tell you how pleased I was with them. I set them out myself, being my first experience. Every one lived and made a fine growth. Thank you very much for the Lombard plum trees you presented me. I Green's Big Berry. They all lived and

In November I potted a plant and brought it into the house. The 25th of February I picked a strawberry measuring four and three-fourths inches in circumfer ence. The plant has several more green ones, besides buds and blossoms. I have taken Green's Fruit Grower for the past two years, since I have been here, and do not think I could get along without it. Hoping it will continue to prosper I remain-Very truly, A. L. Sprague, Mass.

Farmer's Fruit Garden.

When we were small boys our garden was made square and paneled in by splitting staves out of white oak. A row of current and gooseberry bushes was planted close to the fence upon three sides and an sabella grape took up the fourth. When ploughing our garden the horses could not disturb the bushes. This garden must have peen a success, judging from the way the neighbors talked about it. Mother's seed sack held about one-half bushel and it was generally full when fall came. It was hung up ready to be distributed in the spring Our seeds always grew. The farmer's garden and fruit patch should be in a long strip, and should be planted in rows so a fine tooth cultivator can be run through The strawberry plants should be set in the garden part and they should be set out each spring. The third crop should be the last; the patch should then be ploughed up and the ground planted to garden for a couple of years. Always select plants from the previous year's setting, so you can keep them pure; a two-year-old plant is worthless to reset. Plant three rows; one each of Warfield, Crescent and Bederwood and plant Bederwood in the centre. In currants plant one row of Fay's and two of Red Cross and White Grape. In goose-berries plant two rows of Downing and one of Houghton. I would not set out grapes as far north as Minnesota. The vord hardy does not mean that the Snyder blackberry will not winter-kill in Minne-Where we have to lay down raspberries and blackberries to protect them the common farmer had better not set them. A patch of Loudon red raspberries may be planted in some corner.-Rural

Montana boasts of the second largest apple orchard in the United States. It is the property of Marcus Daly and contains 565,000 trees, being part of the famous Bitter Root stock farm. Another big orchard is owned by the Bitter Root Orchard Company, containing 49,000 apple trees in the solid block. There are many orchards in Western Montana containing from 6,000

Cherries for Profit.

S. D. Willard, the prominent fruit grower of New York State, says that of the sour cherries Montmorency, English Morello and Windsor are the sorts generally in demand. The two former are required in large quantities by the canning factories as well as in the city markets, while the Windsor supplies the fruit stands with the largest and most excellent fruit of its season, with no probability of a surplus for years to come. It is rarely sold at less than 10 cents per pound at wholesale. The magnitude of the sour cherry interests may be better understood and appreciated were I to say that the annual crop of two parties of my acquaintance amounts to be tween forty and fifty tons, which is picked for market at an expense of about \$1 per cwt. It is usually sold at from \$100 to \$120 per ton. As grown in the locality referred to, these varieties are but little in clined to decay, and quite free from the depredations of birds, and hence they are especial favorites among orchardists.

The conditions that exist in Northern New York are the same that we have through Central Iowa. It has been demonstrated that we are in the most favored part of the world for producing a sour cherry, and with a market in the great north and northwest, as well as south, the fear of over-production is too far in the future. The two first mentioned are favorites to plant here, but the Windsor has proven too tender to plant only in the favored locations.

A Fruit Prophet Wanted.

Where is the man living that thirty years ago would have dared to predict that before the close of the century single towns in the State of New York would have produced and found profitable markets for cherries by the hundred tons, plums, peaches, pears and quinces in much greater quantities, apricots by hundreds of bushels, and small fruits to match? asked S. D. Willard at the Massachusetts Horticultural Meeting, as reported by the American Cultivator. Yet such is the fact, and the demand is yet in advance of the supply. Is not the outlook full of encouragement to the professional fruit grower, who is receiving from \$150 to \$300 per acre net for his crops? A friend the past season, with a thirty-acre peach orchard, sold his crop for a little more than \$7,000,—from two carloads alone realizing between \$1,400 and \$1,500. The quality was superior. He made the crop by high culture. A large crop of Duchess pears netted the shipper between \$14 and \$15 per barrel, carefully estimated, the fruit being packed in bushel boxes and shipped to England. It is unnec-

and handled on business principles. There were crops of plums that netted the grower from \$300 to \$400 per acre, and currants that yielded returns of \$400 per acre. Instances could be multiplied of like results, has ever been so, and ever will be, while intelligent industry will ever have its re-But the successful fruit grower must be full of intelligence as regards his profession; and he should keep himself thoroughly read up on the best methods to be employed in culture and feeding as well as handling and preparing for market, the wants of the various markets sought, and, last but not least, an acquaintance with all the varieties of promise that are being introduced, some of which will certainly supersede those of to-day. Our population is changing, and with this comes a corresponding change in the taste of the purchaser and consumer. This feature I have found very marked in varieties of plums that I have been growing; varieties that are strongest in demand, and sell at the top of the market to-day, were scarcely known fifteen years ago. This has necessitated grafting over hundreds of trees to newer sorts. Quite too many in making their selections for the contemplated orchard seem to pick from every page of a nurseryman's catalogue instead of confining themselves to a few varieties of known value, or seeking the advice of an orchardist near by whose experience and oppor-tunities would make his counsel valuable. Oftentimes a fruit of superior excellence is of little value to the commercial grower be-cause lacking in the color, size or attractve features demanded in certain markets, Color and size in nearly all fruit is at a premium, when possibly quality may be

From Oklahoma to Porto Rico.

Editor Green's Fruit Grower:

Dear Sir: I write you to know if you were ever in Cuba or Porto Rico. I am about sold out here and think I will go to Cuba or Porto Rico and put out a fruit farm, it seems to me it would be a good place and I would like your advice on it and what fruits would do best in your judgment. Oklahoma is a little too far north for a sure thing. Peach or plum or apricot crop late frosts. I have Elberta a bloom now, also Triumph and apricots. I have a friend traveling in Cuba now ooking after timber. He is a timber man, a big tree gets his eye and he can't see anything else. Now give me your best on fruits in Cuba on the "square."-A. L. Porter, Oklahoma,

(Reply: No I have not been to Cuba or Porto Rico. I should not advise you to go there for the purpose of beginning an enterprise. I do not, as a rule, advise people leave this country for any other country. We have the best country in the world, and the most productive. If one cannot succeed in the United States, with all the advantages we possess here, it is doubtful if he can succeed anywhere. Thus my effort is to discourage my friends from leaving a locality where they were born and brought up to go far away among strangers, not knowing what difficulties they may encounter. I was born and brought up at the North, and I am sure from what I have seen of the South I should not like to live at the South. My Northern friends who have gone South are not at all pleased with the conditions they find there. The fact is, we become by force of habit accustomed to our surroundings where we have lived a long time, and any serious change in climate, or in the character of the community, does not please us.
If you have a wife and children your moving to a distant point would be more se-

rious than if you were a bachelor. Often a man may accustom himself to strange surroundings and the peculiar climate; whereas, his wife, or, perhaps, his children may be seriously affected and find it im-possible to live there with contentment, or possibly with good health. On the other hand, the soil of Porto Rico is undoubtedly fertile, and the same can be said of the Island of Cuba. The conditions prevailing in both these places, however, are peculiar. Everything is somewhat disorganized. The markets are uncertain and unsettled. In Porto Rico there is much suffering for lack of a market for products. The inhabitants

there are now too poor to buy fruits if you should grow them. Then again, you would know nothing of the kinds of fruits grown in Porto Rico. Fruits there are produced spontaneously, also in Cuba; therefore fruits are very cheap, warmout advise you as to what to plant in Porto Rico.—Editor Green's Fruit Grower.

Renovating Old Orchards.

A long neglected orchard cannot be expected to arrive at the profitable condition of trees that have received the proper care and attention from the beginning. In many cases trees may have become so fixed in habit that no amount of good treatment can make them bear satisfactorily. In order to undertake this work aright a grower must arrive at a clear conception of the agencies which conduce to produc-tiveness in order that the work of renovation may take the proper form. Perhaps foremost among the needs of an old orchard, says the Farmers' Advocate, is that of tilling and fertilizing the land. Extensive execution with the saw, and perhaps the axe, may be necessary to make thorough horse cultivation possible. There are usually in such old plantations trees that are clearly not worth the room they occupy, either from a dying condition of the tree, or from the poor variety of the fruit pro-duce. In the latter case, if the trees are sound, grafting with approved varieties may be resorted to. Otherwise these are better removed to the wood pile as cumberers of the ground. If the orchard has been long in sod, the roots may be so near the surface that ploughing near the trees is impossible, or at least unwise. The spade or disk harrow can in such cases be used to good effect in the spring, before the ground becomes hard, at least near the trunks. It has also been recommended to drop corn or other grain into holes made with a small crowbar around the trees, and allow the pigs to root up the ground in search of it. This stirring of the surface preserves moisture and makes it convenient to work in manure, which will not only feed the tree through the roots it now has, but it will also start new fibrous feeders, through which wood and fruit growth will be supported. The work of cultivation must wait for some weeks yet, but that of prunand the use of mild mustard plasters, if and yet you may say they are exceptions, correcting the results of years of neglect almost defoliated. This is the most denoted than that of making the trees bear. The ception in every department of life? It latter result will come as a matter of con-

wait for some weeks yet, but that of pruning can be gone on with at pleasure. In all probability this will have to be somewhat heavily done, more for the purpose of sequence after the trees will have overcome the severe shock. Where it is necessary to remove large limbs the wounds should be painted to prevent checking and bleeding. The effort must be in the direction of producing new and fresh wood for fruit bearing, and to trim the top sufficiently to admit the sunlight and air, and to allow the fruit to develop to something like perfection of size and quality. When the new wood has once formed and the tree has re-established its equilibrium, fruit-bearing may be looked for, if other conditions are right. Among these other conditions must be the absence of insect and fungous infestations, which can be overcome only by dis lodging eggs, nest and insects, by removing the rough outer bark, and by thorough application of insecticides and fungicides at the proper season. A liberal dressing of wood ashes to the trees and the land will have an excellent effect on both the trees and the fruit produced.

Here and There,

Spunge-Talk is cheap. Kostick-You seem to think so, from the way you use my telephone.—Baltimore American.

Life is not very stagnant in North Caro lina, if we may judge from these items in a recent issue of a rural North Carolina "Major Williams has had his leg cut off

in a sawmill. "Colonel Scott happened to the acicdent of having his head blown off by a boiler "Our new preacher had his house burned

down recently.
"Five Mormon elders were tarred and feathered yesterday. "The new town hall was struck by light-

ning on Tuesday. "A circus mule kicked one of our leading citizens on Saturday evening last.
"The new Coroner was run over by a railroad train Wednesday. "There is no news of importance in

town."-New York-Tribune. To a young man who stood smoking a cigar the other day there approached the elderly and impertinent reformer of immemorial legend.

"How many cigars a day do you smoke?" asked the licensed meddler in other people's affairs.
"Three," replied the youth, as patiently

as he could.

Then the inquisition continued: "How much do you pay for them?" "Threepence," confessed the young man. "Don't you know, sir," continued the sage, "that if you would save that money, by the time you are as old as I am you would own that big building on the cor-

"Do you own it?" inquired the smoker. "No," replied the old man.
"Well, I do," said the young man.-Gloucester Herald.

It is especially necessary for us to perceive the vital relation of individual courage and character to the common welfare be cause ours is a government of public opinion, and public opinion is but the aggregate responsibility as a community of doing what we choose; and it is of the last importance that we choose to do what is wise and right.—George William Curtis.

First of April.

Written for Green's Fruit Grower by N. A. When moist the air and pleasing cool,
Come to the day called April-fool;
In weeping April, of whose show'rs
'Tis said, 'They bring the sweet May
flowers."

If, in the sultry month July.
When skeeters bite and bad bugs fly,
(O all the saints bepity us!)
How we should tear our hair (and kuss)
If one dare whisper, e'er so cool,
"You are a-er-a-July fool!"

Kind Nature formed things as they are, From Sandy Hook to Zanzibar; And Elves, not Furles, made this day, We'll catch, from it, what fun we may.

Should others "get the best of us,"
We'll not snarl up and make a fuss;
But, be our name Eve, Paul or Stephen
We will, if possible, "get even."

WHAT CAUSES KNOTTY FRUIT?

Curculio and Scab Chiefly Responsible.

What, in your opinion, is the main cause of knotty fruit? In some parts of the country this is getting to be quite a serious question, especially with pears. We know that the easiest answer to this question is "curculio," but this does not seem to cover all the causes, especially on apples and pears, for curculios are not frequently found on apples, at least in the West. Will you enumerate some of the causes you have observed for this knotty and twisted fruit? There are several causes, curculio not being one of them here. In the order of their importance in Vermont and through this section generally, they seem to be scab

fungus, Railroad worm, Tent caterpillar, lack of cultivation and Codlin-moth. Scab is by all odds the most efficient cause, especially with pears. The Railroad worm is very bad this year, particularly in sweet apples. Neglect and general mismanagement also cause much bad and knotty fruit. -F. A. Waugh, Vermont Experiment Sta-

BORDEAUX MIXTURE AND THE ARSENITES.

While it is true that the curculios are largely and justly chargeable with the knottiness of the apples, pears and quinces, there are several other causes that add to this trouble. Chief among these are some the fruit but the foliage. It makes brown ish-black patches, sometimes half an inch in diameter, which cause the fruit almost to stop growing under them, as a hard tissue is formed in the flesh by the internal growth of the fungus. When the dark patches run together the flesh often cracks. The fruit is thus made small, distorted in shape and of little or no value either for home or market use. It also destroys the leaves to such an extent that the trees are apple and pear.

The quince is affected by another species of fungus, which causes the leaves first to become brown-spotted, then turn yellow and often fall before midsummer. On the fruit it forms dark brown or nearly black spots, under which the flesh toughens and shrinks until sunken places of considerable depth develop by the growth of the rest of the fruit. This disease also works on the pear. There is still another fungus, which s called a rust (Roestelia aurantiaca), that preys upon the quince. It forms orangecolored spots, which finally become hard, dry, black and sunken. With all these diseases, and perhaps others of similar character which are not so well studied out by scientists, the treatment should be thoroughly to spray with Bordeaux Mixture, beginning just before the buds open in the spring, and again about two weeks later, with one or more applications after the fruit is well started to growing.

The different species of curculios and gougers are much more difficult of control. They deposit their eggs in the fruit, when they develop into larvae beyond the reach of anything that can be applied to kill them. Nor can the beetles that do the laying be killed by poison, or in any other way, so far as is known, except by first being caught. The jarring process is quite effectual, but it is costly. It requires much labor frequently to jar the trees and catch the bugs. The quince is especially affected by a very small species of curculio, which causes small, sunken, corky spots that often are so numerous as to render much of the fruit comparatively worthless. The low, bushy habit of the trees makes it necessary especially to prune them so that they may be jarred. One fortunate fact with regard to spraying for the fungous diseases is that the arsenical preparations may be added to the copper mixtures, and all applied at once, thus killing Codlin-moth and any leaf-eating insects that may be troublesome, and the germs of the fungous diseases at the same time.—H. E. Van De-man, in Rural New Yorker.

Race of Oxen.

Editor Green's Fruit Grower: Mr. Smith is one of those men who are fond of telling jokes on other people. But now the neighborhood is ringing with one on himself and neighbor, Mr. Dany. As they were coming out of town driving their oxen, a short time ago, happening to be a little late, Mr. Dany said: "Let's have a race and hasten things up a little," "All right," responded Mr. Smith, "wait till we get up to where I killed a snake coming down. My oxen are afraid of snakes." So they waited till Mr. Smith got his snake and tied it to the end of a stick. Mr. Dany taking off his coat fastened it to a stick, likewise, saying he could get more run out of his oxen that way.

So off they went, Mr. Smith plying the snake and Mr. Dany the coat. Mr. Dany had gained about ten feet when suddenly the tongue of the wagon slipped out of the ring of the yoke. The cart stopped, throwing Mr. Dany about twenty feet out in a field. Mr. Smith was so close behind he couldn't stop so on came his oxen right into Mr. Dany's wagon. The shock turned Mr. Smith's wagon upside down, throwing him into a ditch, while the oxen went lumbering down the road after Mr. Dany's.

After the men picked themselves up and were satisfied there were no bones broken they started off after the oxen, which they

found about two miles down the road. Mr Smith has "sworn off" racing, and says it was an illustration of the old proverb, "More haste less speed."—M. B.

" How,"

There are an number of ways in which you can test a woman's beauty and prove that it is vain. You can see her after she has danced until dawn and drives home in the cold, blue light. You can drop in upon her when her neglige is such in reality, and not a matter of ruffles and lace. You can see her rise dripping from the surf, no daughter of foam and fire, but a creature of dank locks and purple lips. Or you can look at her after she has gone twice around the links in the blazing sun and dust-fraught wind. All these are likely to convince you of the deceitfulness of beauty. But some women are so fair as to bear each and all of these tests. Yet if you were to put them in a smoky, close sleeping car, anywhere between, say, Tucson and Yuma, at the middle of an August day, they might then become, as every one else, so ugly that it would increase your ugliness and bad temper to be forced to look at them. When a woman under these last conditions is still pleasant to contemplate, you may set it down that her charms are real and enduring .- Argonaut.

No Fear of Death.

"I have seen thousands of persons die inder all sorts of circumstances, and never yet have I seen one display the slightest fear of death." This remarkable statement was made the other day by a physician who has practiced many years in Phil adelphia, and who has seen a great deal of hospital service. "It is a popular fallacy," he went on, "to imagine that a death-bed scene is ever terrible, other than as a parting between loved ones. The fear of the unknown is never present at the last. Even amid ignorance and vice I have never ex perienced such scenes, as a novelist, who strives after realism, will sometimes pic ture. When a patient is told that he can not recover and the end is near, he invariably seems resigned to his fate, and his only thought seems to be of those who are to be left behind. This is true alike of men and women. Those who become hys terical and declare they are not fit to die are the ones who are not as ill as they think they are. These always get well. A psychological reason? Oh, I don't know of the fungous diseases. Apple scab is, perhaps, the worst of all of them. It affects both the apple and pear, and not only —Philadelphia Record.

Confidence

mind embarks in great and honorable course with a sure hope and trust in itself.—Cleero.

Trust men, and they will be true to you; treat them greatly, and they will show themselves great.—Emerson.

Referring to the governor's recommendation that \$60,000,000 be spent on the canal, Mr. Callaway figured that at this rate, allowing interest on the amount invested at | 46 per cent. within fifteen year 4 per cent. and \$500,000 a year for operating expenses, the canal would cost in round numbers \$3,000,000 a year. This would amount to a charge of nearly 3 cents a bushel for every bit of grain the port of New York could hope to receive. The prevailing rate on the New York Central, he said, was now about 21/4 cents a bushel from Buffalo to the ship's side in New York. And grain, he said, was the principal commodity that would get through the canal.

The talk that coal would be shipped through this canal, Mr. Callaway asserted, was nonsense since the canal did not tap a coal region.

Butter-Making.

Editor Green's Fruit Grower:

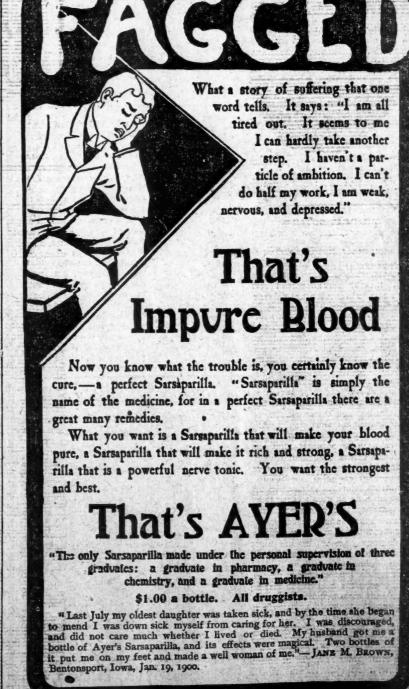
In spite of the fact that creameries have been running in various parts of the country, butter-making is still an important part of the farm work, and many city customers prefer good country butter to the creamery product. We all know housewives whose butter always sells well, not only for its quality but because of their reputation for neatness. People are ready to pardon a fault in any other food sooner than in butter and neat, skillful work will

improve its flavor. It is necessary to exercise care in every stage of the work. The housekeeper's part usually begins when the milk is brought from the barn. The buckets should be of heavy tin, with as few seams as possible, and the milk strained as soon as it comes in. Some housewives prefer a cloth, others a wire strainer and both kinds have their good qualities. Whether the milk is kept in jars, crocks, pans or buckets there should be a plentiful supply so that part of them may be sunning while the others are in use. Separators save much hard work and enable one to make more butter from a certain amount of milk than is rossible in the old fashioned way. Have a potent churn with as little machinery as possible about it so it will be easy to keep it clean. The barrel churn is a favorite with many, but with the various affairs that the house keeper must look after, she is apt to forget occasionally, and after you have begun your churning with the top unfastened a few times; spilling the cream all over the floor, we believe the average housekeeper will decide in favor of some other kind.

There is no part of the butter-making that is more important than cleaning the milk vessels. As soon as the milk is emptied out of them, every bucket, crock or pan should be rinsed with clear water. washed thoroughly in a hot pearline suds, and put out in the sunshine to air all day. This treatment will remove all milk particles from the vessels and leave them sweet, clean and free from injury. There is no place where a woman's careful over-sight is needed more than on a dairy farm, and few places where it pays better. Use a good butter print in cold weather, and wrap each roll in oiled paper which costs very little, and saves caring for butter cloths. In summer it is usually more convenient to put the butter up in one or two pound brick shaped rolls, which can be packed close together in a basket, and hung in the well to keep it firm and in good shape.—Kansas Housekeeper.

Birds Becoming Scarce.

too true, that our finest birds are being exterminated with a rapidity scarcely less than that with which the buffalo was hurried out of existence some years ago. From the reports collected from thirty-six states by William T. Hornaday, it appears that the birds of the country have been reduced the loss reaches 77 per cent. in Florida and 75 per cent. in Connecticut, Indian Territory and Montana. North Carolina, Oregon and California have maintained their average of birds, while there has been an increase in Kansas, Wyoming, Washington and Utah. The western part of the State of Washington shows a curious anomaly, the locality seeming to have become filled with bird forms as a result of clearing away the timber. The destructive agencies are many. There is great wanton slaughter by hunters and boys, much sacrifice for the adornment of women's hats, and surprising loss from the abuse of egg collecting.







We are anxious to have a union for the farmers, the most mercilessly cut class of the country. Everything the farmer buys, from wire nails to a tin pail, is made by a trust. The queer fact about the farmer is that he sets neither the selling nor the purchasing price of anything he uses. He is at the mercy of trusts at both ends. We are an agricultural people, fully sixty-five per cent. of our population residing on farms. To show how farmers are fleeced, take the one item of the milk supply of New York city. The price to the far generally about forty cents for forty-four pounds, barely the cost of production, and yet a New York city monopoly of distribution gives a local concern three cents a gallon on every gallon brought into the city by train. This excessive charge is for the mere manipulation of the output. This New York city monopoly knows the cost to the farmer of keeping cows, to the frac-tion of a cent, and does not propose that he shall have more than actual cost for tak-

A cheerful temper joined with innocence will make beauty attractive, knowledge de lightful and wit good-natured.—Addison,

SOUZEE

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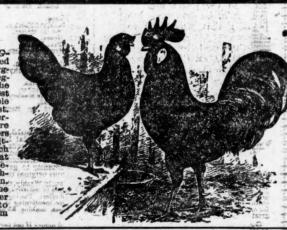
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Single Comb Brown Leghorns.

THE POPULAR LEG-HORN. The admowledged queen of the practical egg-laying breeds is the Leg-horn when judged by the standard of the greatest, number of marketable eggs produced at least cost. Not only are the hens per-sistent layers, but they are extremely active foragers. satent myers, but they are extremely active foragers, and waste no time in sitting. Like a good milch cow, they put little fat upon their benes, but devote all surplus neurishment to steady production. They eat less than the heavy breeds, but whatever eavy breeds, but what





THE WHITE WYAN somest fowls known; large gize, good layers, and highly prized for their meat. The New York markets will, in time more fully appreciate the value of the Wyandotte for its delicacy on the tab of the epicure. It will b oticed that no breed ha all the good qualities, there fore if we want all the good qualities we must have mor than one breed, but surely no one can make a mistak breeding the White Wyandotte: considering their beauty, egg-laying promarkets of the world. Eggs from prize Stock.





OUR POULTRY. DEPARTMENT

Artificial Stone Floors for Poultry Houses.

ing care of his herd. In fact, as matters are at present, every time a farmer buys a cow he is worse off than ever before.

—Fred Kennedy, General Organizer later national Farmers' Union, in the Detroit (Mich.) Journal.

The editor of Green's Fruit Grower is building a poultry house and first thought to building a poultry house and first thought a cow he is worse off than ever before. Fred Kennedy, General Organizer later national Farmers' Union, in the Detroit (Mich.) Journal. simply raise the ground somewhat, put on a layer of gravel, and over this an inch of cement mortar composed of one part of fine sand and four parts of Portland cement. Pessibly water lime would answer the purpose and would be cheaper. Notice on editorial page an article on the subject of cement floors and walks and how to make them.

The objection to a wooden floor in a poultry house is that the vacant space un-derneath the floor makes a hiding place for rats. Rats would be sure to force trance sooner or later, and once hid beneath the flooring it would be difficult to exterminate them. One rat in one night would destroy a large number of little chicks huddling together in the brooder. Our poultry houses are built in a long row, one after another, with the roof some what low: at the lowest part the roof is no over four feet high, and at the highest point the roof is not over seven to eight

feet high. The perches are located at the lowest part, and are only two to three feet from the ground. The building is ten feet wide by sixteen feet long, and is divided in the centre; one part 8 x 10 feet being used as a roosting place, and the other part 8 x 10 feet being used as a scratching shed, one side being entirely opened to the south during the warm weather. During the cold winter days it is our intention to enclose this open shed with doors covered with oiled canvas or sheeting. The doors will consist simply of slight frames covered with this white cloth. The cloth will permit the light and sunshine to enter and will keep out the wind, keeping the scratching pen sufficiently warm, we think. The ground floor of the scratching pen will be overed with cut straw, or other refuse, in which grain will be scattered, giving the birds exercise in finding it.

The side covering of the poultry house is made as follows: On the outside of the studding tarred paper is first tacked, over this one inch novelty matched pine siding, well seasoned, is nailed. Then we batten on the inside with waste pieces of boards or lath, fastening the tarred paper closely to the board beneath which the paper is laid. Then we nail cheap, half inch lumber on the inside of the poultry house on the studding, and over this more tarred paper, and over this tarred paper and another course of cheap half-inch lumber.

The incubator and brooder houses hav several more courses of tarred paper and boards, so as to make them almost fros proof. If all the poultry houses could be lathed and plastered it would be the best method, perhaps. We have lathed and plastered a hen-house and it has made the buildings remarkably warm, and easily kept free from lice and other vermin.

The roofs of the poultry houses are first covered with matched and planed hemlock boards. Over these boards like course of shingles, strong United States duck cloth is tacked after having been thorughly painted on the underside of the cloth before tacking down. The first layer of cloth is tacked on at the lower portion of the roof, the same as shingles. The other courses are laid above this course, each course lapping over the other two or three inches. Then the entire canvas is painted with two or three coats of paint until the cloth is entirely filled. We linseed oil and dark red ochre for painting the outside of the house and for painting the cloth roof. This is the cheapest paint and is the best for this purpose. roofs should be painted every year in order to keep them in good condition. All the houses are well lighted from the south with glass windows.

Profits of Poultry.

Editor Green's Fruit Grower: While I do not wish to brag over Mr.

Halliday, yet possibly a report of what our hens have done may be of interest to your readers. We have one pen of 14 R Plymouth Rocks, one pen of 26 Rose Comb Brown Leghorns and a pen of culls num-bering 12, making in all 52 laying hens; the sum total of their work is as follows: In January they laid 690 eggs, in February 721, and in March 889 eggs. You see while having only half as many hens as Mr. H. we have gotten in January 64, more than half as many eggs as he, and in February 135 more. Our fowls are all less than one year old, were incubator hatched and had laid their first dozen of eggs on November 15th, and at this writing, April 9th, have nine hens setting, five of which are due to hatch this week. While young our chicks had free range; our hens are housed in an underground room, parti-tioned with lath, with windows to the east and door to the south. If our system of feeding will be of interest to readers of your poultry department I shall be glad to give it for some future issue. I will add that our hens have laid, up to date, \$53.17 worth of eggs at prices varying from 35 to 14 cents per dozen.-Will Cox, Conn.

Coops for Raising Small Chickens.

Editor Green's Fruit Grower: Dear Sir-As I am a new subscriber to your Fruit Grower in which I am greatly pleased I believe it to be a good paper for all eople and should be read by everybody. I have seen some good topics on different ubjects, and would not part with it. I intend renewing my subscription after my subscription has expired. And as you have o pleasingly invited me to assist you in the different departments in your paper I will try to give a few words on coops for raising young chickens. There are many people who do not have the right theory for raising small chickens. They simply hatch them, put them in a box or some other contrivances, so scanty that can then place in some out-of-the-way place and throw their food on the ground where all the fowls on the premises can feast upon, and give the poor little chicks no time to eat their meals. No wonder they complain of having no success in poultry raising. There are many ways in which coops are made for their proper protection and comfort, yet there are some wars which are better than others. Bu

task, yet they can be made without much skill and practice, but those who have had much experience in poultry raising are more able to construct a more perfect coop or cot which is more suitable than those made by the inexperienced poultry raiser. I have made a coop which I believe to be very satisfactory, consisting of one double and two single coops and two wings or flat coops with an inclined glass in the front which will give better idea than words can illustrate The pen or dining room under the glass is divided into two parts, for each coop and its inhabitants. The hen is placed in the coop and by a small opening in the side of the coop will admit the chicks into the dining-room. My idea of the addition or dining-room under the glass is for the small chicks to dine in and for pastime; it also affords more room for them in wet and cold weather, by the sun shining through the glass will cause warmth which they admire very much. glass will cause warmth and light

They must be kept dry and warm; there fore they need a clean, dry and cozy coop I feed the hen in the coop with large grain and the chicks in the other room with food especially prepared for them; in the young before they have time to eat it mselves. The floor is loose so it can easily be cleaned out when necessary by simply lifting the coop from the floor and can be washed off with ease. I have the floor elevated about six inches from the ground by laving bricks upon each other or by driving stakes down into the ground at the corners, thus leaving an open space under the coop to prevent rats from har boring under the coop as is often the case when set upon the ground. It also prevents rotting and also affords shade for the chicks from 1/1/e/hot mid-summer sun, it is pleasure for them for they like to hide and creep under boards and other things. This gives them exercise which is a very essential thing in raising young chickens By a lid or shutter it can be made rainstorm and rat proof, protecting them from the depredations of the numerous pests which haunt the poultry yards during the night.—Chas. H. Mummert, Abbottstown,

Poultry Dots. A foul house will cause disease in your

fowls! Feathers his nest-the successful poul

Grow into poultry keeping, rather than There is more in the feed and the feeder

than in the breed. Poultry keeping is not heavy work, yet it's no job for a lazy man.

Keep shell-boxes well filled, and feed plenty of whole corn on very cold nights. After the hens have been mated about three weeks, the eggs should be of sufficient fertility to set.

Do you know of a safe business in which you can start on so small a capital with such assurance of success, as with poultry? Never allow the litter in pens to get damp; renew with dry straw or leaves fre quently. Stock, to be kept healthy, must be housed in dry houses, especially in winter when closely confined. Your whole flock should be in full winter

lay now, and increasing constantly as spring approaches. Give houses plenty of ventilation by opening wide the windows every pleasant day.-Telegraph.

Why I Choose the Plymouth Rock.

I have often been asked why I chose the White Plymouth Rock as my fayorite fowl, and my answer always has been that I believed them to possess more good points than any other breed. To begin with, they are the equal of any as layers during the whole year and much better than many as winter layers. They make good sitters and. when necessary, they can be moved after they begin to sit. They are the best of mothers, and if properly cared for will commence to lay as soon as they wean their chicks and oftentimes before. The eggs are good size and I have always found them all that could be desired as regards fertility, as I seldom get less than 90 per cent. hatch, and I believe that this is attributable to the hustling qualities of the breed, which also makes them a great favorite with the farmer, for with a good range they seldom need feeding from July till November on account of their foraging traits, and for this same reason they are one of the healthiest breeds of fowls .- J. L. Jefferson, in Farmers' Home Journal.

New Breeds.

It is a temptation, when a new breed is offered, to accept it because of the many claims that may be advanced in its favor out it is not wise to use any of the newest breeds except in a limited manner; not all new breeds, however, for it is possible that a new breed may be superior to any of the recognized varieties, but it will pay to always experiment before investing too largely with something that is not well known. All new breeds are heralded with claims in their favor, which lead the novice to suppose that they will be revolutionized: but the breeds may be a success in one climate and a failure in another, and even two or three seasons' trial is not always convincing. There are now over eighty breeds of chickens, ducks, geese and turkeys, which are sufficient to make a selection from, all having been tested, some for half a century, and it is therefore better to use the old and standard breeds than to fly to newer kinds, unless there is an assurance that the new breeds are far superior

Ducks on the Farm.

It will pay to add ducks to the poultr department of every farm. Nothing was every known to grow so fast and cause so little worry and work as ducks. Everything is "grist" that comes their way. They consume vast quantities of coarse foods and convert it rapidly into flesh and money. The growth they make is wonderful. They are independent of the caretaker, except so far as food is concerned. When they have grown to be two or three weeks old, they even provide the greater part of their own food by hunting for it. They are the happiest, brightest and most independent things on the farm. They require a house or houses of their own, plenty of water to drink and puddle their bills in, and grit in some form. Their houses should be sprinkled well with sand or dry litter, and swept out every day. If one has many of them, a park of their own fenced off with poultry netting, is best for all concerned, for they scarcely resist the rain and storms which so are always getting into the drinking water frequently occur during the spring season, park need not be very expensive. Low netting answers every purpose, unless you wish to keep every hen out of their yards, and that is really best, for hens and ducks do better if kept separate. It is not a necessity, but for the sake of cleanliness and comfort it would be better to have the ducks by themselves.—Epitomist.

Poultry Work for Old People.

Editor Green's Fruit Grower:

To those of your readers who sadly imagine they are too old to be of further use in this world I write this cheery item. I will show them how my aged parents (nearly portion at least of the year 1899. The number of fowls they had on hand

at the beginning of the year, consisted of sixty pullets, a little over one hundred hens, from two to four years of age; a few fall swelled the number to nearly two hundred. Later in the season a good many of the older fowls were killed, a few died, but the forty-six pullets raised from the one hun-dred new chicks commenced to lay in October, so the average number throughout the year would reach about one hundred and eighty. These were composed largely of Buff and Brown Leghorns, also a few each of Black Spanish, Plymouth Rocks and White Leghorns. Total number of eggs laid during the year was 18111/2 dozen or 21,738 eggs. I have read with much interest the accounts you publish from time to time of the success of your correspondthis way the hen cannot eat the food of ents, but I have seen nothing as yet that can beat these old people of Northern Connecticut on the egg-producing question.— Mrs. E. H., Ct.

What Makes Fowls Sick.

The most troublesome diseases of fowl, with their causes, may be summed up as follows: Roup-Planted by "only a neglected Cholera-Caused principally by over

crowding. Diarrhoea-Damp houses, filthy house and runs, and bad feeding. Canker-Dampness and filth. Diphtheria-Roosting in draughts, also

damp houses. Ulcerated Throat-Ditto. Consumption-Neglected cold. Apoplexy, Vertigo and Epilepsy-Over

Sore Eyes-Damp houses. Costiveness and Constipation-Improp Soft and Swelled Crop-Overfeeding.

Indigestion and Dyspepsia-Ditto. Pip-Damp quarters. Bronchitis-Ditto. Black Rot-Result of indigestion. Soft Eggs-Overfeeding.

Gout, Rheumatism and Cramp-Damp Leg Weakness-Inbreeding and overfeed-

Bumble Foot-High perches. Scaly Legs-Filthy and damp quarters. Chicken Pox-Ditto.-Unidentified Ex

Location for Incubator.

A cellar is an excellent place for an in cubator, because it is usually of an even temperature, especially if the cellar is one that will preserve roots and fruits; but the atmosphere should be dry and pure, which will be the case in winter. Any place that is of even and regular temperature will answer for the incubator. If the incubator is in a room where the temperature changes no harm will result, provided the operator watches the lamp-flame, and does not allow too much heat to accumulate. The hot water incubator (no lamp) must be oper ated in a warm place, if possible, in order to avoid loss of heat at night. When ho water is used the heat is the same over every part, and it makes no difference where the spout may be placed. Heat rises, however, and will go to the highest point. All that is necessary is to have the incubator level. This can be easily done by placing a level on top of the incubator, but it will be better to level it by placing the level in the egg-drawer. If the heat s too low at one end raise that end a little. A few days' experience will settle the matter. One of the first things to remember when the chicks are coming out is not to listurb the eggs. If the thermometer is kicked over no harm will be done, as the emperature will not change if the chicks are not taken out. When the chicks are removed the heat falls, as the animal heat of the chicks largely affects the temperature of the incubator. Avoid drafts of air in the incubator when the chicks are coming out, and it is safe to say that very little moisture is needed, as the warm moisture when it meets the cold air causes a loss of heat much greater than may be noticed. Evaporation of moisture from eggs is always at the expense of a loss of heat. Incubators with regulators, either of hot air or hot water, will easily regulate

Yield of Eggs.

the heat and moisture.-Farm and Fireside

Editor Green's Fruit Grower: I want to tell your readers what one of my bachelor friends has received for the product of about 300 hens for the year ending January 1, 1900. This is only a side affair in connection with his farming and stock raising. Eggs sold during 1899: January 155 doz. @ 31 cents \$\$ 48 05 February 416 " @ 16 " 66 56 March 731 " @ 13 " 95 03 April 507 " @ 15 " 76 05 May 440 " @ 17 " 74 80

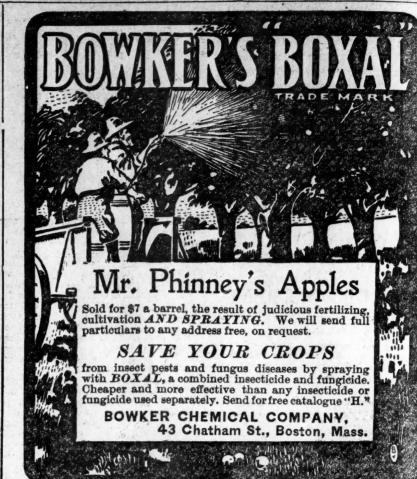
485 " @ 17 286 " @ 18 July " @ 20 210 August September 276 276 290 " @ 28 210 " @ 31 October November December 292

93 44 4,304 \$844 26 Total for eggs.....\$ 844 26 Sold during the year, 30 dozen broilers @ \$3.00 per dozen.. 90 00 Sold during the year 20 dozen hens @ \$5.25 per dozen.... 105 00

Grand total.....\$1,039 26 There was no account kept of the number of eggs used or number of chicken eaten in the family of from three to six. As they raise all of their own feed no estimate is made of its cost. The chickens have green alfalfa to run on all of the year and the cost of feed could not amount to the one-half of grand total. Now any good woman can do just as well here as this man.—Respectfully, G. T. Jones, Nicolous, California.

Poultry Pays.

They pay well for investment. Have part of basement of old grist mill for hen house, 16x30 feet, built of stone and with lots of windows. Fowls have run of barn and the rest of the basement. Have 75 hens and 3 cocks, P. Rocks and Brown Leghorns. Feed the usual warm mash in the morning. Keep early pullets for winter layers. Feed a variety of grain, and boiled meat scraps, with plenty of for layers potatoes, etc. Give some sulphur twice old hens. week, and pounded shells and lime and dust in abundance. There is a spring of through the poultry press now and life good water in one corner of their quar- will not seem a burden to you. You will



verage of 20 cents per dozen for eggs .-D. C. Sigworth, Wyattsville, Pa.

Have made them pay by setting in March and April so as to have early pullets. Sell cockerels as soon as large enough. Wheat is best feed. When moulting, we feed highly in early fall, and then sell the old hens. Pullets lay all winter. Get fresh cocks annually. Feed warm mash in the morning and try to make as much variety in feed as we can, giving whole grain at night. Give them whole cabbage hung up to pick at, or turnips split in two, to take the place of summer grass. Keep quarters clean and whitewash shed. Have roosting room made warm in the winter. Prefer Wyandottes .- O. B. Stoddard in Practical Farmer.

A Lack of Lime.

While corn is a food that has its mission in winter, it will do more harm than good when continued steadily on until spring. Wheat may be classed with corn. These grains are good because they are concentrated, and enable the hens to eat enough from which to derive their warmth, but though they contain a portion of nitrogen, they are very deficient in the mineral elements. There is less than a pound of lime in one thousand pounds of wheat, and if a hen is compelled to subsist on grain entirely, how is it possible for her to furnish eggs, which are not only covered with a shell of lime, but also contain within themselves the substances that are changed into bone, blood, flesh and fat?-The Poultry

Trap Nests.

Editor Green's Fruit Grower:

Dear Sir-Mr. A. A. Halladay is right in regard to the value of the trap nest of which he speaks in the last number of your paper. While I have due regard for the pockets of the inventors of patent trap nests. I believe I have a little more regard for the pockets of the thousands who are (ncubator still ahead.) by raising poultry.

If your readers will send to the Maine Agricultural Experiment Station, Orono Maine, for their 14th annual report, they can learn how to build and use a trap nest that is as near perfect as one need be. I have just put in a set for my flock of sixty-five, to select breeders from next spring, and by giving it attention four or five times a day I can keep a record of every egg laid by each hen.-H. P. Langdon. N. Y.

Help the Hens.

"Something from nothing you can't take." The most of us are beginning to realize the truth of this trite saying in regard to most things about us. It is a poor farmer who does not realize that he cannot take grain from his fields year. after year, returning nothing to them, without some time, sooner or later, getting to the end of his string and finding his land run down and bankrupt. But some poultrymen have not discovered that the same principle holds good in regard to hens. You can't get something from nothing there, either. If your hens are to lay eggs they must have something to work with; they must get egg forming elements from some source or other.

In recent years the practical poultryman has been able to double his egg supply in the winter by a careful study of egg pro ducing foods. Prominent among these mus be placed green cut bone, a food that is 51 48 easily and cheaply obtained and that is 42 00 undoubtedly the greatest egg producer ever fed to hens. The bone, when finely cut while it is still green, supplies that element of animal food so needed and so relished by fowls, taking the place of the bugs and worms which the hens devour so greedily upon the range. Moreover, one supplies the mineral matter needed for egg formation, the lime, the phosphate, the magnesia, and is, in short, an ideal egg When we consider how cheaply the bone

can be procured and how little trouble s to prepare them for the fowls if s difficult to understand why any poultry man neglects their use.—Frank B. White

Scratchings.

Try those bone cutters. There is merit in them and in feeding green bone or the idea would have been lost sight of long The old turkey hen that stole her nest

away last spring and hatched and raised a dozen nice young turkeys while you wer itting up nights watching those die that you were raising according to scientific principles should have a good long sentence in your Thanksgiving prayer this year.

Study the demands of the market if you wish to make the most of poultry raising. If the people want yellow-leg chickens that's the kind to raise. Pick out the best pullets and keep them for layers next spring. Kill or sell all the

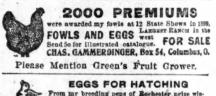
Follow all the advice that is going tection and comfort, yet there are some ters and eggs do not freeze there in winders. But making coops for rearing early spring and harples Cream Separators—Profitable Dairying farm. Sell surplus in rall, and get an care for them. THE APIARY

—its pleasures and profits, is the theme of that excellent and handsome illustrated magazine, Gleanings in Bee Culture. We send a free sample copy, a Book on Bee Culture, and book on bee supplies to all who name this paper. name this paper. THE A. I. ROOT CO., Medina, Ohio,

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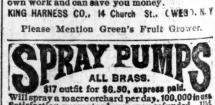
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EXPERIENCE IN HORTICULTURE.

The Utility of Spraying.

A great deal has been said, written and published during the last twenty-five years in favor of spraying. By spraying is meant a particular method of applying Fertilizers containing at least chemicals for preventing fungus growths on fruit bearing trees, shrubs, vines and plants and for destroying insects, preying upon fruits or upon the trees and plants that bear them. Somewhere about the year 1872 the Colorado Potato Beetle made its was soon an earnest cry from potato growers for deliverance from its ravages. It was very natural that some one should suggest poison. In discussing various kinds of poison it was agreed that arsenic in some form would be the best kind to employ and that Paris green or London purple would be the best forms in which to employ arsenic. To divide those poisons it was recommended to mix them with plaster, rye flour or middlings before dusting the potato haulms with them. Some time in 1875 or 1876 a brother of mine, residing in the town of Farmington, Ontario Co., N. Y., had prepared a mixture of Paris green and plaster, wherewith to dust his potato vines and was passing along the western side of a young orchard when he discovered some canker worms upon the west side of some of the trees. For two or three years a large orchard about a half a mile west of his orchard had been badly infested by that voracious worm and stripped of its leaves and a few of the worms had just reached his young orchard. It occurred to him that if the Paris green mixture would kill the potato beetle, or its larva, it would kill the canker worm, and he threw some of it over the leaves upon which they were feeding. When he returned from his potato field he found that the worms were missing, and they did not return. I published the experiment in the American Rural Home. In 1877 I visited the large apple orchard belonging to the late Oliver C. Chapin, of East Bloomfield, Offario Co. For the two previous years a young orchard of fifty acres, on that farm, had been devastated by the canker worm and the foliage destroyed. He had tried several expedients to rid the orchard of the vermin without success, and that spring had tried spraying it with a mixture of Paris green and water with complete success, the trees being clothed with foliage. As the foliage

> few pears, sold that year for the comfortable sum of 17,000 dollars. I know not who first suggested the idea of offering the Paris green mixture to the codling worm. Mr. J. S. Woodward, the eminent farmer of Lockport, claims that honor and I am not disposed to question his claim. However, I think that few who have given it a fair trial will question its efficacy as a remedy for that great pest, or for any of the chewing insects that feed upon the surface of leaves or fruit or bark, where their food can be reached by the poisonous spray. Those that bore inside and do most of their eating there cannot be reached by poisons applied externally unless they be put where they may take a bite just as they are en-tering. Such is the case with the larva of the Codling moth. The egg is laid and hatched on the outside and then crawis to the little calyx cup on the blossom end and enters the apple there. If there is a min-ute particle of the poison there where it takes the first bite it generally proves fatal. Some insects, like the canker worm and tent caterpillar, cannot be killed by the poison unless it is administered when they Therefore it is very im portant to be on the alert and offer them a dose when they first hatch and begin to eat. Horticulturists should study the life history of the leading insects and learn their habits and times of depositing their

had been destroyed the previous years the

trees had formed no fruit buds and they

were barren. However, in passing, I

would say that the apples from another

fifty-acre orchard on that farm, and a

eggs and when the eggs hatch that they may be enabled to cope with them intel-Suctorial insects, those that subsist by inserting their beak and drawing the sap from trees and plants cannot be poisoned by the arsenical insecticides because they take their food from the inside beyond the reach of the poison. Such are the numer-ous families of aphides, or lice, including the scale insects, so destructive to the foliage of fruit trees. But these may be reached by oily substances that cover their skin, closing the pores through which they breathe, thereby suffocating them. Kerosene emulsion and whale-oil-soap are gen-

erally used for such a purpose.

Soon after the attention of horticulturists was aroused to the great loss inflicted upon them by predaceous insects it was found that fruit growers had another enemy scarcely less formidable than insects, b longing to the vegetable kingdom, namely, parasitic fungi. There are a number of species of fungi that fasten upon bark eaf or fruit drawing their nourishment from their juices, the fruitful source of disease and death. They are known as mildews, moulds, blights, rusts, scabs, can-kers, etc. Through their operations leaves are rendered unhealthy, incapable of setting and maturing sound, perfect fruit. It was found long ago by gardeners that sulphur was an antidote to fungi and some claimed to be able to prevent their growth by a liberal use of sulphur, blown upon their plants through a bellows. Mildews affected French vineyards and as long ago as 1882 and 1883 scientists began to experiment with copper sulphate and lime applying it to their vines in the form of paste. In 1883 one, Millardet, produced hat has since been called the Bordeaux mixture, composed of copper sulphate and lime, diluted with water. Paris green soon became the most common poison-insecticide for insects and the Bordeaux mixture the most approved preventive of fungi, called fungicide.

But I have not yet explained the meaning of the term spraying now so generally employed. These poisons were first ap-plied dry in the form of dust or paste, but when they came to be used extensively it was found that that was too slow and cost ly a method and then they began to apply he poisons mixed with water and to diffuse them as much as possible it was considered desirable to devise means of applying them in a fine spray that would cover leaves, bark and fruit without injuring them and at the same time prevent useless waste-of the poisons. Inventors went to work to construct nozzles through which to throw the liquids that would break them up into as fine a spray as possible. There are now in use a number of very good nozzles, each of which has its advocates, and when horticulturists talk of spraying it is well understood by the informed that it is the application of favorite poisons in the form of spray.

IS SPRAYING REALLY EFFICA-CIOUS? Once in a great while you may meet a man who will tell you that he has tried spraying and that it did not do any good, but I think it is very rarely. It is the almost universal testimony of those who ning. H.F.JONES, Dept.B.T. Brooklyn, N.Y.

have given spraying a fair trial that it is a certain remedy for the injuries inflicted by most of the fungi and insects that trouble the fruit grower. If any one has tried spraying and been unable to see any good effects it must have been that his chemicals were badly adulterated or that they were not applied at the right time or in the right way. It is quite a trade to properly mix the chemicals and then to properly spray them upon the trees or plants affected. I have been acquainted with a number of orchardists who have followed spraying many years and yet con-fess that they learn something almost every year about spraying, either about the time or the manner of using the poisons Many have found that they should con mence earlier, as soon as, or before, the fungi begin to germinate or the insects to hatch and to eat; others have found advent in Western New York and there that they must be more careful to have the spray cover every part of bark, leaves, stems or fruit, every part that the pests are likely to attack and feed upon, that they must be more thorough in their spraying to derive the greatest benefit from the

operation. I have made it my business for many years to visit most of the productive orchards in this vicinity and have found scarcely one that has grown good, sound, paying crops of late years, that was not sprayed. As a matter of course those who went to the trouble and expense of spraying took good care of their orchards otherwise, fertilizing, pruning, thinning the trees and cultivating the soil, but with all the rest spraying was essential to the growth of sound fruit. Nearly all who have resorted to spraying first satisfied themselves of its utility by spraying part of their fruit trees and leaving a portion as check unsprayed and the contrast in appearance of foliage and fruit convinced hem that it was a good thing. In 1896, n consequence of favorable climatic conditions, there was an immense crop of apples all through the country, in neglected orchards as well as in those well cared for; orchards in grass, orchards in corn; in wheat, in oats, uppruned and unsprayed were bending and breaking down under their heavy burdens of fruit and prices of fered would hardly pay for picking, packing nd hauling to market, in fact, th of bushels were not picked at, all but left hanging upon the trees until they were frozen and thawed and dropped to the ground. The next spring, going through orchards near to such a market as Rochester you would see the ground covered in places with rotten apples. Since then there have been only partial crops, perhaps one orchard in a dozen, or in a score, bearing fair crops and prices ruling high, from \$2.00 to \$3.00 a barrel. As a rule, only those orchards that had been well cared for and sprayed bearing. I visited a number of those bearing orchards and saw trees loaded with as large and handsome fruit as we were accustomed to grow before orchards were invaded by numerous species of fungi and insects. Some of those farmers realized from sales of fruit, incomes of 3,000, 5,000, 8,000, 10,000 and 12,000 dollars a year. Were not those receipts enough to amply compensate them for a few days labor and a few dollars expended

WHEN TO SPRAY?

for poisons in spraying?

Successful orchardists are becoming nore and more convinced of the necessity of early spraying. Several species of fungi and also of insects commence operations very early. A few warm days start the germs or spores of fungi to flying and as soon as they alight upon bark, or leaf buds or fruit buds they should find the Bordeaux mixture there ready to do its duty and pre-vent germination. Several species of injurious insects hatch or leave the cocoon in which they have wintered from a very little spring warmth and the young larva crawl into the buds through very small openings. I have found arhides and the larva of the bud moth inside of buds where it seemed impossible for them to enter through the very small openings between the minute leaves.

One man in Hamlin commenced spraying his orchard in the very early spring of 1898, on the 18th of April, when fearing that he was too early he stopped, after spraying six and one-half rows, waiting two weeks before spraying the remainde of his orchard. Those six and one-half rows, first sprayed, bore very fine, healthy fruit, remarkably free from scab and worms, while those deferred until the early part of May were quite defective. If that orchardist had finished spraying the entire orchard when he sprayed the six and one-half rows it would have been many dollars in his pocket. The time to begin spraying should not be determined by the calendar but by the condition of the weather. Some years spring is as far advanced by the middle of April as in other years by the first of May. Our best fruit growers, I think, spray three times in a season, just before the buds open, just after the blossoms fall and two or three weeks later. It does pay to spray and to spray early and

Reflections of a Bachelor.

they die before they get there. A man's resort from worry is a good laugh; a woman's resort is a good cry. Solomon wasn't the wisest man because he had three hundred wives, but in spite A woman can take a terrible disappoint-

ment a lot better when she has her best dress on. No matter what fool noises a baby makes, woman can always tell you exactly what it is trying so hard to say.—New York

SPRAYING FRUIT TREES. The question of spraying fruit trees to prevent the depredations of insect pests and fungus diseases is no longer an experiment



Our readers will do well to write Wm. Stahl Quinoy, Ill., and get his catalogue describing wenty-one styles of Spraying Outfits and ful reatise on spraying the different fruit and regetable crops, which contains much valuable information, and may be had for the asking.

Clematis Plants Free. We offer free as a premium for each sub-scriber to GREEN'S FRUIT GROWER one erriber to GREEN'S FRUIT GROWER one fine plant by mail of Jackmanni Clematis. This is the most popular and free blooming of all varieties of clematis. Such expen-sive plants have not before been offered as premiums. Ask for this premium when you subscribe, or you will not get it. Cherries Wanted.

Not one of the fruits has been growing in demand more generally in recent years than the cherry. California has been supplying our city fruit stands with a product nice in appearance, but much inferior in quality to that which can be grown easily and profitably in our own region. Should we not endeavor to supply our own mar-ket? Of the sweet cherries the Bing, sent to me from Oregon a few years ago test purposes, I am inclined to regard as an acquisition, and worthy of a test by all interested in growing the cherry. The Black Tartarian is being supplanted by the Windsor. As for sour cherries, I know of nothing superior to the Montmorency and English Morello.

It seems to be strongly in evidence that we have little to fear in the future from the competition of Maryland and Delaware in peach growing, while on the other hand great progress is being made in the devel-opment of varieties of such hardiness in fruit bud as to be adapted to our soil and climate, and we believe we are justified in assuming that here is a field for the progressive fruit grower full of promise that has yet been scarcely considered.

The very rapid increase of insect life of an injurious character has necessitated knowledge in relation to their life work and habits that years since was not required, and the spraying pump has come to be re garded as a necessary appendage to all well-regulated fruit farms. Indeed, systematic spraying at proper intervals from early spring until after the fruit is well formed claimed as the cheapest insurance that can be provided for nearly everything grown. The wise, up-to-date orchardist finds it an economical method in making a superior crop, while his careless neighbor, furnishing a feeding ground for all the pests that abound in the vicinity, produce a crop of knotty, worthless fruit, denounce the party to whom he has consigned it for sale as a fraud, and argues that th business is overdone. This is no exaggera tion, but is in evidence annually.-S. D.

Bee Poisoning; Damaging Fruit.

In regard to danger of poisoning bees by spraying trees with poison when they are in bloom, it has been definitely shown by careful entomological and chemical tests that honey bees are thus killed, and fur thermore that the bees may take the poison back to their own homes and poison the young developing brood which they feed in the hive. Every fruit grower should make it a rule, never to be broken, that no fruit bearing plants are to be sprayed with polson during the blossoming period. We be lieve that there is no excuse for spraying at this time, because, in our opini can spray more effectively just before and just after the trees bloom.

In regard to the assertion that bees puncture tender fruits and suck out the juices, it may be said that the experts of the department of agriculture, a few years ago, carried on some exhaustive experiments, using every conceivable device induce the bees to puncture grape skins, with the result that in no case did the bees ever puncture the tenderest-skinned variety. Further, close observations and experiments have shown that wasps bite open tender fruits, birds peck them, they crack under the action of sun and rains, and hail sometimes cuts them, the bees only coming in afterward to save the wasting juices of the injured fruits.

It is not easy to point out concrete, sp cific cases wherein any one has been able to compute the actual amount of practical benefit, in increased fruit and seed production, on account of more thorough cross pollination by bees. Mr. Frank Benton the bee expert at Washington, has kindly cited some data on this point,-Prof. A. J.

Future Outlook for the Fruit Grower.

S. D. Willard, of Geneva, N. Y., delivered a lecture last month on "The Future Outlook for the Fruit Grower" before the Society in Horticultural Hall as reported by American Cultivator. After introduc tory remarks as to the progress made in the past, he said, in part:

There is certainly a meaning in the situation as found to-day in the rapidly growing interest in our favorite work, not yet, however, commensurate with the spirit of the times in which we are living. The day s not distant when a higher appreciation will be placed upon our orchard interests and their value intensified more thoroughly than the most optimistic can imagine. The era of prosperity upon which we have just entered and which has enhanced values of everything manufactured, has not yet reached the tiller of the soil to any marked extent, but sufficient to afford en couragement, and to warrant the assumption that better days are at hand for the fruit grower in the various branches of his work. This possibly may not be so marked as in other business interests, for the reason that during the period of business de-pression from which we have but so re ently emerged the prices of all fruit pro ducts were better maintained than was any thing else sold. I find from consulting my salesbook back through a period of ten years that the average prices, while being less than during the same period previous, were yet satisfactory and afforded a profit. Indeed, I know of no orchard men who were forced into bankruptcy or sold out under foreclosure.

The prices of apples have been steadily advancing until for several winters they have been held so high as to be beyond the reach of the masses, and good No. 1 apples are really a luxury to-day. They are shipped to all parts of the world as green fruit, canned and evaporated, while the skins and cores are converted into wines and jellies, so that nothing is lost or wasted. A few years ago our surplus of this fruit was marketed in the British Isles, while to-day the German states and Russia are calling loudly for them, with the probability that our newly acquired possessions, both in the Atlantic and Pacific, will soon be numbered among the consumers of this king of all fruits. Seven counties in Western New York are said to have received from their apple crop not far from \$5,000,000 the past season, while at the same time receiving hundreds of thousands of dollars from their pears, plums, peaches, quinces, cherries, apricots and small fruits. Is not the outlook full of encouragement to the orchard man, as well as to the land owner who nay have found his work unsatisfactory in fighting competition which will never less, from regions unfitted by soil or climatic conditions for growing fruits that can be produced nowhere else as well as in New York or New England? I beg your serious consideration to this subject as de-serving more thought and careful study than has usually been given to it. There should be an increase of area for the production of this fruit of the cheap lands now indant throughout this region, accompanied with greater intelligence as to va-racties especially adapted to commercial work and more thorough culture, with the purpose of growing only fruit of the high-est quality.

For the land's sake use Bowker's Fartilizers. They enrich the earth,

Test For Yourself The Wonderful Curative Properties of Swamp-Root.

To Prove What the Great Kidney Remedy Swamp-Root Will do for YOU, Every Reader of the "Fruit Grower" May Have a Sample Bottle Free.

Reporters Have Convincing Interviews with Prominent People Regarding Wonderful Cures by Swamp-Root.



65th POLICE PRECINCY. Greater New York, Nov. 11, 1899.

Dr. Kilmer & Co., Binghamton, N. Y .: Gentlemen:-In justice to you, I feel it is my duty to send you an acknowledgment of the receipt of the sample bottle of Swamp-Root you so kindly sent me. I had been out of health for the past five years with kidney and bladder trouble. Had our est physicians prescribe for me. They would relieve me for the time being, but the old complaint would in a short time return again. I sent for a sample Swamp-Root, and I found it did me a world of good. Since then I have taken eight small bottles bought at my drug store, and I consider myself perfectly cured. It seemed as though my back would break in two after stooping. I do not have to get up during the night to urinate, as I formerly did three or four times a night, but now sleep the sleep of peace. My back is all right again, and in every way I am a new man. Two of my brother officers are still using Swamp-Root. They, like myself, cannot say too much in praise of it. It is a boon to mankind. We recommend it to all humanity who are suffering from kidney and bladder diseases.

My brother officers (whose signatures accompany this letter), as well as myself, thank you for the blessing you have brought to the human race in the compounding We remain, yours very truly, of Swamp-Root.

Officers of the 65th Police Precinct, Greater New York.

HUGH E. BOYLE, JOHN J. BODKIN.

Women as well as Men are Made Miserable by Kidney and Bladder Troubles.

em satisfied that I do not need any more medicine, as I am in as good health as I ever was in my life." So says Mrs. Mary Engelhardt, of 2835 Madison street, St. Louis, Mo., to a reporter of the St. Louis "For more than ten years I had suffered

with what the doctors termed female trouble; also heart trouble, with swelling of the feet and limbs. Last summer I felt so badly that I thought I had not long to live. I consulted doctor after doctor and took their medicines, but felt no better. The physicians told me my kidneys were not affected, but I felt sure that they were the cause of my trouble. A friend recommended me to try Dr. Swamp-Root, and I must say I derived immense benefits almost from the first week. I continued the medicine, taking it regularly, and I am now in splendid health. The pains and aches have all gone. I have recommended Swamp-Root to all of my friends, and told them what it has done for me. I will gladly answer any one who desires to write me regarding my case. I most heartily endorse



Swamp-Root from every standpoint. There is such a pleasant taste to Swamp-Root, and it goes right to the weak spots and drives them out of the system.' MRS. MARY ENGELHARDT.

How to Find Out if You Need Swamp-Root.

It used to be considered that only urin-ary and bladder troubles were to be traced to the kidneys, but now modern science proves that nearly all diseases have their beginning in the disorder of these most portant organs. The kidneys filter and purify the blood

that is their work. So when your kidneys are weak or out of order, you can understand how quickly your entire body is affected, and how, every organ seems to fail to do its duty.

If you are sick or "feel badly," begin aking the famous new discovery, Dr. Kilmer's Swamp-Root, because as soon as the other organs to health. A trial will convince anyone.

Weak and unhealthy kidneys are responsible for more sickness and suffering than any other disease, and if permitted continue fatal results are sure to follow Kidney trouble trritates the nerves, makes you dizzy, restless, sleepless and irritable. Makes you pass water often during the day, and obliges you to get up many times during the night. Causes puffy or dark circles under the eyes, rheumatism, gravel, catarrh of the bladder, pain or dull ache in the back, joints and makes your head ache and back ache, causes indigestion, stomach and liver trouble; you get a sallow, yellow complexion; makes you feel as though you had heart trouble; you may have plenty of ambition, but no strength; get weak and

waste away.

The cure for these troubles is Dr. Kilmer's Swamp-Root, the world-famous kidney remedy. In taking Swamp-Root you afford natural help to nature, for Swamp-Root is the most perfect healer and gentle aid to the kidneys that is known to medical science.

If there is any doubt in your mind as to your condition, take from your urine on rising about four ounces, place it in a glass or bottle and let it stand twenty-four hours. If, on examination, it is milky or cloudy, if there is a brick-dust settling, or if small particles float about in it, your kidneys are in need of immediate attention. Swamp-Root is pleasant to take and is used in the leading hospitals, recommended by skillful physicians in their private practice, and is taken by doctors themselves who have kidney ailments, because they recognize in it the greatest and most sucessful remedy for kidney, liver and bladder troubles.

If you are already convinced that Swamp-Root is what you need, you can purchase the regular fifty-cent and one-dollar size bottles at the drug stores every-

EDITORIAL NOTE—The great kidney remedy, Swamp-Root, is so remarkably successful that a special arrangement has been made by which all our readers who have not already tried it, may have a sample bottle sent absolutely free by mail. Also a book telling all about kidney and bladder troubles and containing many of the thousands upon thousands of testimonial letters received from men and women cured by Swamp-Root. Be sure and mention reading this generous offer in Green's Fruit Grower when sending your address to Dr. Kilmer & Co., Binghamton, N. Y.

His New Craft.

Wickwire-Look here. This is the fourth time this morning you have been in here asking for the price of a meal. Dismal Dawson-Yep. I am the absent-minded beggar, don't ye know.-Indianap-

Noblesse Oblige.

Now that they were become suddenly wealthy, she positively declined to quarrel with her husband any more. "A family jar," she wittily protested, "is

so liable to crack the escutcheon. Of her many friends, some appreciated the exquisite play upon the words jar and crock, while others merely thought her too sensitive.-Detroit Journal.

Adding Fuel to the Flames.

"Sir," said the irate individual with wicked look in his eye, as he entered the editorial sanctum of a rural weekly, "I am told you called me a loafer in your last

"You have been misinformed," replied the editor, calmly, "We print only the very latest news."—Chicago News.

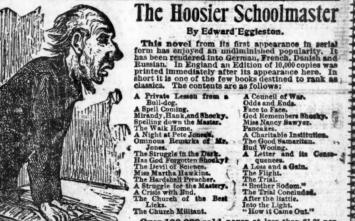
How to Restore Furniture.

To restore to their original appearance antique pieces of furniture which have be-come unsightly on account of too frequent varnishing or besmearing by unskilled hands the following methods is employed: Take equal parts of strong alcohol and good oil of turpentine and heat this mixture in a bottle by placing it in hot water. With this warm liquid paint the article, whereapon the old varnish will dissolve at once. The varnish is removed by scraping and wiping, and the spreading, scraping and cleaning are repeated as often as necessary until the surface has become entirely clean again, so that the object may be rendered glossy or dull, as desired. This pro cess is especially recommended, since it does not change or attack the color of the wood, as is often the case if lye is used.

Spanish Railroad and Villages.

"A few years ago, when I was in Paris," said Charles Gilman, of Boston, to a New York Tribune reporter, "my brother-in-law cabled me to go to Madrid, and to see some correspondents of his there. I had a most interesting time of it and was at the Spanish capital for a little more than three weeks. The railroad from the Pyrenees down zigzags in most curious fashion, even when running over perfectly level country and where there were no obstructions to overcome. They told me that the reason this was done was to increase the mileage as it was built on government contract at so much a mile. All the high hills along the line of the road were surmounted by small forts or water towers. These were erected in the great Carlist insurrection There is one queer thing the passing trav-eler will note in Spain, at least in the northern part of it, and that is the absolute lack of the isolated farmhouses, such as one sees everywhere in this country. There is a constant procession of small villages. The reason the rural population congregates to-gether is the danger of living by themselves, as the country is literally infested by banditti.

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nts a flower that grows wild in our yards and fields. We are going to give away \$50 IN GOLD to those who are able to send us the correct name of this

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Known by The Way He Eats,

"You may not believe me, but it is never theless a fact that a great many hotel and restaurant waiters can tell a diner's occupation by his manner of eating," said a waiter in a restaurant to a Star reporter. I have been told that no baking could ever recently. "Of course, the waiter must be so good as that done in the old brick a close observer of human nature to determine with accuracy whether a customer no definite memory of the exploits of the is a scissors grinder or a banker. But if a man is intelligent and avails himself of the opportunities his position affords him thought) called a Dutch oven, an affair

in the daily pursuance of his calling some habit that will show itself. "For instance, a banker may come in, seat himself and call for an oyster stew If he does, as soon as the order is served he is apt to begin a search with his spoor for the oysters that are not visible, just to

see if there is a miscount. WILL HEAR
Anyone is watching and then palm a slice
of bread. If he orders pancakes he is sure to slip them one by one from the bottom as he eats them. The clothing salesman will hold his pancakes up to the light and feel the texture, while the keen observer will notice that the jeweler upon ordering pie will hold it to his ear, shake it and then listen, after which he will left off the top crust with the point of his knife and exam-

"Have you ever made a mistake in judg-

"Only once. And that could hardly be called a mistake, for I made no decision as to the man's business. The fellow came in and ordered his dinner. Of course I gave him a glass of water. He looked at it with some surprise, and said "I didn't

"'It costs you nothing,' says I, 'and you don't need to drink it unless you want to.' He thanked me, and what do you think?

The Secret of Arcady.

I hied me off to Arcady—
The month it was the month of May,
And all along the pleasant way
The morning birds were mad with glee,
And all the flowers sprang up to to see,
As I went on to Arcady. But slow I fared to Arcady-

The way was long, the winding way—sometimes I watched the children play, and then I laid me down to see
The great white clouds sall over me—
at thought they sailed to Arcady. But still I fared toward Arcady, Until I slept at set of day, And in my dreams I found the way; And all the fates were kind to me; So that I woke beneath a tree In the dear land of Arcady.

I dwell no more in Arcady—
But when the sky is blue with May,
And flowers spring up along the way,
And birds are blithe, and winds are free,
I know what message is for me—
For Lahave been in Arcady.
—Louise Chandler Moulton.

The Good Old Times.

Editor Green's Fruit Grower: Though not so old as I might be I an older than I was, and I had the great advantage—for my present purpose—of be ing born in a log cabin, the largest half of the neighbors living in log houses at the time. Civilization does not take of feet over the whole country at once, pie neers are always to be found in this locality or that; there are any number of log houses in use to-day I suppose, though their day is over in this section. Still my story is not at all heroic, my people were not of those whom we read about who fought wild animals and Indians. We had saw and grist mills, tanneries, blacksmiths, carding machines and stores; a canal came within twelve miles and I suppose the people thought themselves as highly civil-ized as any community could be. We left the log house when I was five years old but the frame house we moved into still had an open fire place, and I well remember the quantities of logs I cut to keep it going as I grew up. I believe rt is the proper thing to grow pensive and sentimental when visited by these memories, as one recalls the lights and shadows dancing on the wall, the companiship of the open fire and all the rest of it. There certainly were cosy and peaceful hours now and then in moderate weather when no more fire was to be made that night, but I think the fireplace nowadays is imagined to be more delightful than really was. The fireplace the well-to-do citizen builds for a plaything is one thing, the one which is your only fire is another. As I have said, it was pleasant in winter evenings when the logs had quieted down into coals and there was nothing to do but to sit and watch them. Pop corn buried in the ashes would jump out as the grains popped one after another, and you could draw them out with a long stick, or apples could be set down to roast, while nothing makes a prettier fire than a lot of black walnut or butternut shells. But the next corning life began again and a back log had to be got in. So the doors were opened and the heavy stick was pulled and pushed along by inches, often leaving a trail of snow, and rolled into its place, the fore stick and the lighter wood was added and the smoke began to roll up the chim ney. But there was little heat, and the outside weather which came in with the back log made it worse. Small children began to fret with the cold and you felt like putting on an overcoat before it began to go. When at last the flames were crackling and all began to think the worst was over, some supporting stick might burn off, letting more or less of a log on the floor, filling the room with blinding smoke. All made a wild rush upon it with tongs, shovel and poker and it was rolled, lifted and pushed, getting away perhaps and falling down again until at last it was placed once more. Then the doors were pened to let out the smoke, all hands wiped the tears from their eyes and the

ncident was closed. In fact the open fire in cold weather is wild creature which must be tended, and headed off and managed incessantly; and if the good wife had been paid two cents for every time she took the broom or shovel or tongs in hand to adjust things she would have had a good income. In mild days with the sun shining in the situation was less acute, then the remains of a back log would cover itself with white ashes and dream itself away with no one to worry it. But a fire place without fire is of course different. "But," you say, "the ventilation of a room which has an open fire is so good." No doubt; there is an area of very low barometer over the hearth and all the cyclones are hurrying to the spot, and the higher the flame leaps the ore vigorous the rush of cold air becomes. You might suppose the high-backed arm chairs generally with grandmothers in them which you see in old time pictures were so made for decorative reasons, but they were not. They were windbreaks. The kiln dried victims of the hot air furnace may sigh for the open fire, though even these never would consent to the real in the company of a range with its hot water reservoir and steaming kettles which make the window glass run with water every cold day have no reason to worry. I have been told that no baking could ever a man is intelligent and avails minister the opportunities his position affords him for the field of study he will soon find that a customer, while eating, has acquired that a customer, while eating, has acquired high. The loaf was held up by a frame six or more inches from the hearth. A eheet of bright tin sloped down to the hearth beneath the bread pan to reflect the heat upward against its bottom, while another sheet slanted upward to concentrate the heat on the top of the loaf. Then I had strict orders to keep entirely away from it, so I hovered in the background while this insensate machine occupied the hearth for a time that seemed a young eternity to a small child. Then there was the skillet, a broad, shallow bowl of cast iron on legs, with a long handle. Coals were drawn out, and the dough put in, then a griddle of iron was put on and coals heaped on it. Or a corn meal batter was

spread on a board and set up close to the fire. When it was done on one side it was

turned over and baked on the other. The coffee pot sat in the ashes, while kettles hung from the crane above the logs. All this can be done, for it has been done, bu do you think, madam, that you would like to do it. I know you would not. And there are lots of more pleasant things than cutting and hauling so many heavy logs and chopping so much wood. So when I hear people wishing they could live by an old fashioned fire place I think

they do

in It costs you have the continue of the conti

never had seen the silver dollar of my country, and in fact did not see it until somewhat recently. There was plenty of Spanish (or Mexican) silver all very badly worn with many pieces from which the stamp was gone entirely, leaving them as smooth as a piece of tin. Buried in hot embers and then cooled a film of purple oxide formed on them and the design could be seen. This phantom of the stamp didn't last long, it easily rubbed off again; but when you saw it you knew you had a real coin and not a mere blank piece of metal as it seemed before it was heated. Not many pieces perhaps were treated in this way, it was merely a curious experimen There was a thin coin perhaps slightly larger than a half dollar, which passed for 37% or 50 cents, I have forgotten which, a smaller one having the same stamp, and a little one, thin, no doubt, to begin with, but worn almost to an edge, and passing for a York shilling (121/2 cents) or a dime as people could agree, if I remember. The large pieces had the pillars of Hercules (as the ancients called the headlands at the Strait of Gibralter), looking on the coin like two toll-gate posts, the space between being hung full of shields and things with excited lions on them, and a Latin inscription round the edge. Hispania mulier erat squilgorum or something like that; I perhaps do not quote accurately, but the effect on all who do not understand Latin will be precisely the same. All you who feel able may now imagine the United States at present rubbing along from year to year with a few wornout coins of Spain and the coniptions every patriot would have in consequence. And yet I believe our people felt bigger then than they do now. king was on the other side of these coins, but none of us were ever acquainted with him so we cared little about him. Then there was a bright red copper cent. The phrase "a red cent" refers to the high color of this honest looking coin, which would have made a number of the dingy bronze cents we suffer from to-day Now and then we saw a "Bungtown." huge copper coin worth two cents; three inches across it seems to me, though pos sibly less. Still there was nothing small about it. It was possibly an English penny. But the main feature of our currency at the time was the bewildering number and variety of the notes of the State banks, new ones were coming to hand all the time. Every cross roads' storekeeper had a great dingy pamphlet-Thompson's Bank Note Detector, which described every bank note in the country. This dreadfu book was edited, I think, three or four times a year to give notice of the opening of new banks, the failure of old ones, etc. The notes of some New York City banks were taken without question, but if you produced a note on the bank of South Podunk or the like the merchant took down his detector and looking up the place read in effect: The dollar notes of this bank show a young woman sitting on a plough with a bear beside her knee and sheaf of wheat behind her. A canal boat in the middle distance is going to the right. A full length Indian is on the west end. etc. "Um, well, yes, I guess I'll take it." he would say. Or "There is 5 per cent. off on the notes of this bank" so your dollar went for 95 cents and you were supposed to be thankful it was no worse. It was the correct thing if you had money enough to be visible to the naked eye to step into the local bank and have the cashier in-

all but it must have been worth a huge sum in the aggregate. The times I have spoken of are not very so good as the old time, but my opiniou (not worth much) is that a year of life is worth more now than it was in the good old times, for many reasons more than these.—E. S. Gilbert, N. Y.

spect the bills. I do not say that enough

time was spent looking up things in the detector to have bought the bank notes and

Fruit Growing.

There is practically unlimited market for the very best fruit of all kinds. If only the best were grown, the use of fruit would be far greater than it is, and, of course, the prices would be much higher than they have been. The fact that some of the perishable small fruits often find a glutted market and poor prices only shows that a lot of poor fruit, or fruit in bad condition. is offered where it is not wanted and can only be sold at a sacrifice. But if this perishable fruit is canned or dried even the glutted market may be avoided, provided the fruit is really of the best quality. The canneries will take at paying prices what-ever good fruit is offered, if all the inferior fruit can be kept out of the market. Either to cut down or regraft with better kinds all the fruit trees that do not yield paying crops is the first condition of success in fruit growing.

This country is increasing in wealth more rapidly than any other in the world. though here, as has always been the case in Europe, this wealth is becoming very unevenly distributed. Those who are only in moderate circumstances naturally wish rticle, but you who do most of your living to share this wealth, that by ordinary methods seems beyond their reach. They can best do this by producing something that the wealthiest cannot do without and making it so good that they can fix their own price on it.-American Cultivator.

This Will Interest Many.

F. W. Parkhurst, the Boston publisher, says that if anyone who is afflicted with matism in any form, or neuralgia, will send their address to him at box 1,501, Boston, Mass., he will direct them to a perfect cure. He has nothing to sell or give; only tells you how he was cured. Hundreds have tested it with success.

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Again at Large.

"My friend Jimson," observed the boarder with the double chin, "is trying the new non-alcoholic serum." "From observation," remarked the new "I presume the effect will

He reached for his hat. "As long as he doesn't see rum. Yes."
It appeared that the Weekly Tenplunks, the humorist, had again changed his local

Reflections of a Bachelor.

Death isn't near as great a leveler as narriage is.

Probably every man who had one used to wonder, when he was a boy, how any man could want to marry his sister. who talk it over try to look like they knew just how it felt to be the woman in the

to a point where she wouldn't rather be happy with any other man than to be York Press.

How to Set Fruit Trees.

The season is again near at hand for planting trees, shrubs, vines and plants, and no time should be lost in preparing all the requisites so as to be in readiness for planting at the first opportunity. Many persons fail to understand the importance of having the soil in thorough tilth at planting time. The lifetime of a tree or plant depends materially on a scientific system of planting, and the first five years after planting determines the existence and proftableness of the orchard or vineyard. Select the location for a new orchard with care. See that the soil conditions

suited to the nature and requirements of each variety are present. Give the apple the loamy soil and the peach, pear, cherry and plum the thinner or poorer soil. The dwarf pear requires a good garden loam. Plow the ground deep, harrow and level and mark off for the trees accurately. Dig the holes, or if planting largely, four furrows may be turned apart with the leaving an open furrow for the line of trees. Have the trees trenched, each variety separately, near where they are to be planted Take ten or twelve from the trench at a time, giving protection to the roots by covering with damp burlap or old carpet. Cut back the mutilated roots to sound, healthy wood. Use a sharp knife, cutting from the under side. Set apple trees one to two inches deeper than they stood in the nursery row, leaning ten to fifteen degrees to the southwest. Have the top soil thoroughly fined or pulverized. Fill in by sprinkling on and through the roots, packing in with the fingers. When the roots are well covered, the dirt should be well firmed with the feet so as to leave no air space about or near the roots. If the soil is too dry to supply proper moisture, then water. One to three gallons may be poured in the hole after the roots are covered, and after the water has settled out of sight, continue the filling and firming.

Peach, plum and pear should be planted three to four inches deeper in the orchard than they stood in the nursery, as this will bring the budded junction under ground, and in time the bud stock will cast roots and give support and vitality. After the planting of apple and peach is concluded, go over and cut back the growth of the Lave escaped from their pen, and are run-The times I have spoken of are not very ancient but the changes both in the ways of living and in money matters are great.

The times I have spoken of are not very apple one-third to one-half, cutting the peach back, all side branches, to one and fifty or sixty full-grown hogs, it is necessfully two buds of the center stalk. Head back sary to be most circumspect in your method It is natural for men on the wrong side of the center stalk to two and three feet. Pear, plum and cherry should not be cut back his shrill little squeal of distress is raised except to take out broken limbs.-By S. H. Linton, in American Agriculturist.

Small Fruits.

The season will soon be here when the small fruits will want to be set. Res assured that unless you grow them you will not in general have them. They cost money to buy, and the few wild ones time and hard work to find and pick. The average farmer has a sudden call to town when blackberries are to be picked. The mother wife, daughter or sister is compelled to tramp miles when the dew is on to get them and miles back at the hottest part of the day to bring them home. Then they must be cared for either in pies, jelly or canned. The time consumed in going in most instances would suffice for the picking and utilizing the home-grown. Then you have not been in danger of snakes and stock. One hundred strawberry, ten currant, ter gooseberry, fifty black-cap and fifty red raspberry, and fifty each of early and late

blackberry and ten grapevines will, if properly cared for, supply the average family with small fruits from May 15th until Oc tober 15. We want to emphasize the care as it all, in a great measure, depends on that one word. It is true there is a great difference in varieties, but weeds, grass, etc., and the small fruits, do not mix well

in cultivation. Select a site for the small fruits near the house, and have it as near level as possible, but well drained, both surface and under if necessary. That part you intend for strawberries, currants and gooseberries make as rich as possible. That for the balance have fairly fertile. Arrange for one row of strawberries. Your currants and gooseberries together in one row. Red and black-cap raspberries one row each, and two rows of blackberries, one early and one a late variety. You may, if you choose, have an early and late variety of raspberries, say twenty-five of each kind. The idea of a single row of strawberries may be new, but it is an improvement over the old way. If you have an imperfect blooming variety for main crop, have the

fourth plant in the row a perfect one. By this method you can cultivate easier gather better, with no tramping down of the vines, as is the case in beds, etc. You may not like the idea of having your currants and gooseberries so far apart in the row, which ten of each would make. Here is a suggestion: Put the ten grapevines in this row, say twenty feet apart, and fill your currants and gooseberries. Why? asks one. I will tell you. Currants in general and gooseberries in particular should be shaded from the afternoon sun, and the grapevine at intervals will in a great measure do that. I have not said word about varieties and time of setting, distance apart and cultivation and pruning, and we are going to let them all go, save distance apart of rows and the plants in the same rows. You can set your straw-berries two feet apart in the row. That is you say; but this row, remember, is to be kept three years. Your red and black raspberries a row each, four feet in the ow, and the rows six feet apart. Early and late blackberries each a row, four feet in the row and tows eight feet apart. One row remains, your current, gooseberry and grape. By setting a grape at each end, you can arrange the other eight by putting hem twenty-two feet apart in the row, thus leaving nine spaces for the twenty currants and gooseberries, which can be set as follows: Three plants in first and last spaces, and two in each of the other seven. Some one says this will cost so much. Let us see. On a forty by two hundred feet, eight thousand square feet,

or less than one-fifth of an acre.

strawberries can be made to produce three crops. Raspberries ten at least; so with the blackberries. Grapes, currants and gooseberries an indefinite period. Thus you see, save with strawberries, there need be no renewing for years, but there must be cultivation, pruning and thinning. In short, this must be done exactly at the right time For small areas of the berries we prefer to mulch instead of cultivating. The mulch will want to be repeated alternate years, however heavy it may have been applied

—Agricola, in Land and a Living.

Animal Chivalry.

Although many painful instances are on ecord of the ruthless destruction by animals of the young and females of other species, or even of their own, yet there is, think, little question, that in the main When a man has been fool enough to there runs a sort of unwritten law through commit suicide for love, all the women the animal kingdom, that infancy, and even childhood, are entitled to certain rights of immunity which must be respect ed. Indeed, I think most exceptions to A man would rather be miserable with this rule would be found to depend on the woman he loves than to be happy with some curious connection in the animal any other woman; but a woman never gets | mind between size and strength, for most of them are in the cases of small animals happy with any other man than to be between whom and their young victims miserable with the man she loves.—New there is not so much discrepancy in size. In fact the balance may be in favor of the victim. Certainly the smallest animals, such as stoats, weasels, martens, etc., are the worst offenders in this respect, and dogs, who can be easily urged to chase a lamb or a calf, will turn aside from and refuse to attack blind kittens or very young rabbits.

The attitude of animals towards the young of their own species is, we think, aimost uniform, most of us having probably seen instances of it. I was once the possessor of a fine English setter, a dog of a most Hibernian delight in the "fog o' fightin'," and extremely jealous, to the degree of quarrelsomeness, of every rival that came about the place. He would face any dog, ard, indeed, had thrashed and been recognized as the master of most in the neighborhood, but if a young puppy or kitten were suddenly presented to him, he would turn tail and flee in apparently abject terror. If he came into the house and found a puppy (of which there were usually one or two in stock in those days) sprawling upon the hearthrug, he would turn and bolt as if he had seen a snake, and refuse to return until he thought the coast was clear. And several of my hounds appeared to possess this curious "puppy-dread" in less degrees.

It might also be mentioned in this connection that, as a rule, no dog of size or courage will condescend to attack a smaller or obviously weaker dog, unless the remarks and actions of the latter become insulting beyond endurance. The little dog seems to realize this thoroughly, so that it may almost be taken as a general rule that the smaller the dog the more quarrelsome and abusive he is. The attitude of dogs and other domestic animals towards the babies or children of the family to which they belong, and which they probably regard as adopted into their own family circle, is a familiar illustration of this same feeling. Nor is this simply a matter of affection for the particular individual; on the contrary, its purely impersonal, and, if we might use the term, abstract character is sometimes most curiously shown.

This sense of obligation to interfere actively on behalf of the younger or weaker members of their species is widely spread throughout the animal kingdom. In attempting to capture young pigs, which of picking up a youngster, for if once you will have the entire herd down on you at once, bristles up, tusks gnashing, and fierce, barking war-cry ringing. Cattle have the same curious susceptibility to the cry of a frightened calf, especially in their half-wild condition up on the ranges.— Woods Hutchinson, M. D., in the December Contemporary Review, London. (New York, L. Scott Pub. Co.)

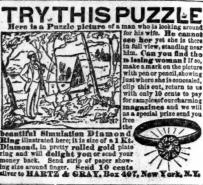
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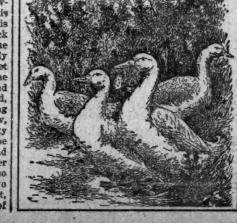
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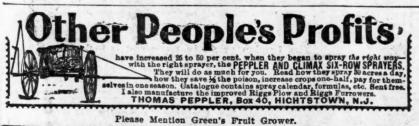
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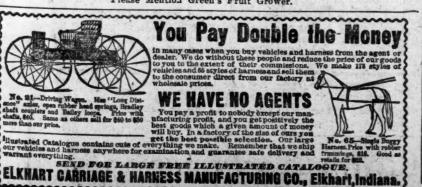
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Nobody Knows but Jesus.

Written for Green's Fruit Grower. Written for Green's Fruit Grower.

Nolpdy krows, though you went astray.

How hard you tried when you falled to-day.

Nobody knows of the tears you shed.

As you crept alone to your weary bed.

Nobody knows of the sleepless night,

Of the penitent soul, and the heart contrite;

Does nobody know?

It is better so—

Nobody knows but Jesus!

Nobody knows how you pray and long To overcome, to be brave and strong; Of this yearning love, and this longing wild, Nobody understands, my child! Nobody knows, for you cannot tell Of the things you have learned to know so well. well.
Nobody knows—they will never know;
But oh! it is better, better so—
Nobody knows but Jesus!

Nobody knows why you lingered long
In the midst of that busy, moving throng;
Nobody saw her, gaunt and wild,
Only some mother's wandering child!
Nobody knows it was yours, the hand
That may guide, perhaps to the Spirit Land.
Nobody knows—they will one day know;
But oh! not now; it is better so—
Nobody knows but Jesus!

Softly they tread—it is evening now;
Gathers the mist on the pallid brow.
Nobody knows—they have never known;
But thou shalt reap as thou hast sown.
Nobody sees them gather there,
Angels of light, divinely fair.
Nobody knows—how they long to know!
Dear God, it is better, better so—
Nobody knows but Jesus!

Smilingly, there, you cross the sea;
They call, and beckon, and wait for thee.
"O God, if we had known!" they say;
And you hear their words as they soar away.
"Too late! too late!" is the echo wild
That returns to earth, not heav'n, my child!
For there they sing, "It is better so—
Thy rest is sweet, if they do not know—
If nobody knows but Jesus!"
—"I, H, N."

Wine from Apples.

Science has lately made it possible to obtain good wine from the apple, which has always been devoted to sparkling cider. Experts have been deceived in sherry, madeira and sauterne which came from apple juice instead of grapes.

Juice from the apple is fermented with yeasts of different kinds brought from the grape-growing districts of Europe to this country. For instance, the flavor of sherry is due not to the grape, but to the infinitesimal fungus germs that cause its fermentation. The American companies import these germs from the district in Spain where they flourish, inoculate the apple juice and ob tain a fine wine. The same process is followed with other varieties of wine.

These yeasts are obtained from the sediment in the vats of Europe. They are easily propagated, and the only difficulty is to separate the different kinds. As the quality of wine depends on these fungi, vinemakers have usually left to chance the kind of wine they produce, depending on the organisms which float in the air and attach themselves to the grapes. The yeasts are sold bottled and are much in emand.-Chicago News.

Mr. Gladstone to Boys.

What Mr. Gladstone has to say to young boys about success in life ought to b worth reading and worth thinking about. "Be sure that every one of you has his place and vocation on this earth, and that it rests with himself to find it.

"Do not believe those who too lightly say, 'nothing succeeds like success.' Effort-honest, manful, humble effort-suc ceeds by its reflected action, especially in youth, better than success, which indeed, too easily and too early gained, not seldom serves, like winning the first throw of the dice, to blind and stupefy. "Get knowledge all you can.
"Be thorough in all you do, and reme

ber that, though ignorance often may be innocence, pretension is always despicable. But you, like men, be etrong, and exercise

your strength. "Work onward and work upward, and may the blessing of the Most High soothe your care, clear your vision, and crown your labors with reward."—Sel.

Questions Answered.

Editor Green's Fruit Grower:

1. What is apple scab? Does it spread from tree to tree? Should trees that have become affected be removed from the orchard, or how can they be reclaimed? 2. Can grape curculio be destroyed by spraying with Paris green early in the

3. I can now secure crude petroleum for I make it profitable to saturate grape arbors, fence posts, barn and out-building

posed wood? 4. How are Northern Spy apple stocks for the purpose of grafting obtained? My object is to avoid the woolly aphis and their immunity makes them desirable.

5. How can I prevent the bark of plum trees from bursting by freezing? Or how should they be treated afterward? Long live the Fruit Grower. We all like it and will look for answers in it.— Respectfully, A. F. Campbell, Ky.

Reply: 1. Apple scab is a fungus which attacks the leaves and often the wood of the young shoots. Like other fungus this is inclined to spread to the orchard. Apple scab is generally spread over the country. It is not necessary to destroy the trees af-fected. Apple scab is held in check by spraying with Bordeaux mixture, as per our spray calendar in May issue of last year, and which will appear again this

2. I have no experience along this line but should doubt whether it could be thus

3. Crude petroleum is highly prized by many of our readers as offering a protection to wood exposed to the weather. I have no personal experience. It is used as an insecticide, especially to destroy scales on trees, but I have not used it in that way. 4. You have to buy trees of Northern Spy apple. The grafting of these trees makes them the stocks for other varieties.

5. If the plum trees are banked with earth they will not be inclined to burst so far as banked. Possibly wrapping the trees with cloth will prevent bursting but I have no experience along this line. The fact that your plum trees are injured in this way indicates that you should plant hardier va-rieties. We would try the Japan plums. The hardiest varieties are the native plums such as Weaver and Wild Goose.

His Apple Orchard.

After years of experience in dealing with the apple growers of the east and Canada, New York State, I can say that men who have made a grand success in treating their apple orchards so as to bring them large and profitable incomes are the men who have given just as much attention to their apple orchards as any of the mem-bers of this society give their peach trees. Most of them plow their orchards in the fall of the year, and give their trees clean culture, with some phosphates. Not a few have been trying mulching with half rotten straw, but a large share condemn this mode of treatment, as it makes a fine harmode or treatment, as it makes a nne nar-bor for all sorts of insects. As to culture and treatment of the trees, from close ob-servation, watching cause and effect for the past ten years, I can freely say I be-

lieve in clean cultivation and thorough trimming of the inside growth of the tree, so as to admit plenty of sunlight, thereby setting more perfect fruit and fine coloring. call to mind the finest orchard I ever saw -at Hilton, N. Y., this season-belonging to James Curtiss & Son of that place. It had about 1,000 barrels of Baldwins and about 400 barrels of Greenings. This fruit was handled and packed the best I ever saw by growers themselves. They received \$3 per barrel for first grade and \$2 per barrel for seconds. They had no poor fruit to pack, and the prime or real cause of it was thorough spraying. As to the proper care of the trees, I will say that everything nowadays for a fine crop of choice fruit depends on proper spraying; the insects are working early and late to destroy. A few spray late in the fall and some early the spring, and so on up to fruit. I call to mind a fine orchard at Brockport, N. Y., in which scarcely a wormy apple could be found this year. The owner believes in thorough spraying, acts accordingly and gets fancy prices for all his fruit. In 1898 he received \$5,000 for his crop of apples and the season just closed he \$7,000 for his crop, picked and laid on the ground-from about twenty-seven acres of land; and the same party who bought the crop last year secured it again this yearshowing that quality brought the figures up. About ten different buyers wanted this fruit and wanted it bad, as they knew it

was free from worms or scab. I have seen a few orchards in Michigan this year where the fruit was as good and perfect as in those of New York in appearance. The main point is that when you once have a fine apple orchard, it will pay for years as a rule."—L. H. Basset's paper before Michigan Horticultural Society.

Profit in Small Farms.

The number of plants that can be grown on an acre of ground is much larger than be supposed, everything depending upon the distances apart at which the plants are placed. If the plants are one foot apart in the rows, and the rows foot apart, the acre will permit 43,560 plants. If six inches apart in the rows 87,120 plants may be grown. This is growing the plants very close together, but it may be done with some kinds, such as lettuce, early turnips, beets, carrots, onions, parsnips, string beans, etc. It would be impossible to use a horse for performing work of cultivation, all labor being by hand implements; but the manure would go on a smaller area, and the cultivation vould be thorough, while the ground would be protected from the sun, and weeds would be crowded out. Less moisture per plant yould be the result, however, as the rain would fall on a more restricted space. All vell-cultivated and profitable farms are those which are small. Hand labor is more expensive than when the ground is worked by horses, but there will be proportionately less land to cultivate. If early crops are followed by late ones, two crops in one year can be grown. The loss on large farms is due to the fact that the yields are smaller than on small locations. -Philadelphia Record.

Puddling Trees Before Setting.

One of the most helpful things I ever learned in horticulture was about puddling trees and all sorts of plants before setting them. The first thing every transplanted tree or plant must do before it can grow in its new location is to heal the wounds made upon its roots and start new rootlets through which to absorb moisture and food from the soil. The closer and more firmly the earth is pressed to them the more readily they can do this. It takes time for the particles of the soil to get into as close contact with the roots as it was before transplanting, no matter how well the work is done. This is where puddling comes in. The cost is nothing, except a very little

work. It is done thus: Near where the trees or plants are heeled in, or the place where they are to be planted, dig a hole about two feet in diameter and one foot deep. Fill it nearly full of water. Into this put mellow earth that is partly composed of clay, and stir it until it is a mass of thin, sticky mud. As soon as the roots are trimmed ready for planting dip them into it, bodily. If there is any delay about planting and the mud dries so that it is not sticky, puddle them again. When the mellow soil comes in contact with these muddy roots it will stick to then closely. Those who have never tried this plan can have no knowledge of the good little more than the hauling-six miles. Can that follows. I puddle almost every plant that I set, and find that it always pays. Cabbage and sweet-potato plants will start roofs with it for the purpose of preserving into new growth almost without wilting, no them or is it really a preservative of extime.-Contributor American Agriculturist.

The York Imperial and Some Other Apples.

discussion in your valuable paper on the York Imperial apple as we took a part in its introduction both in Pennsylvania and Kansas many years since. Fifty-one years ago when at Bendersville, Adams County, Pa., the Burkholder Nursery Co. were propagating, planting and introducing the York Imperial as the coming long-keeping winter apple.

seeing the apple as it was out of season. them under her name, it on March the 14th, 1851, we were at the income might not cease. nursery in the same county, which was also propagating and pushing this apple. They presented to a party of us specimens of the apple that we might judge of it for ourselves. So far as we can now remember they all agreed that it was a very promising apple. In 1858 we procured some scions of it and root-grafted them and in 1860 set out a tree of it in Kansas where we now live, in a specimen orchard. In 1866 we set out another orchard, on an elevation about 400 feet higher, of many varieties and including York Imperial.

In 1867 we spent the summer and fall in Pennsylvania and New Jersey visiting the most promising fruit locations, among which was the Burkholder orchard at Bendersville, Adams County, Pa. This orchard was perhaps the best in the county, or at least as good as any other, and contained many varieties, the largest propor-tion York Imperial, and all in full bearing. The York Imperial trees looked like weeping willows, the limbs and branches bending to the ground with ropes and clusters of apples. No other variety compared with them in productiveness. We were so impressed with what we saw that we sent a report to the Gardeners' Monthly at the has. Suppose some thief came in the time. That report we have no doubt did nore to introduce the York Imperial apple than anything else, as it was perhaps the authorities, and hunt the thief to the last than anything else, as it was perhaps the first article published in a horticultural paper of an orchard of York Imperial in full bearing.—National Stockman and

For the land's sake use Bowker's Fertilizers. They enrich the earth.

If Love Were Blind.

They say that Love is blind; how is it, then,
I find in thee charms others cannot see?
What grace is there within the common ken
In its fair foliness unrevealed to me?
I see as all may see, the sapphire light
Within the clear depths of thy wondrous

Thy comeliness hath 'scaped no seeing eye; Each feature's fair perfection none ma

miss;
Yet I, poor wight, that should be blind, espy
A loveliness that far excellent this,
More subtle beauties than the rest may know,
While harmonies that mute are to the rest
Make music to mine ear, so that I glow
With trembling raptures and within my
breast My heart for very joy doth leap and bound.

-Chicago Record.

Cultivating Orchards.

Prof. Green said that last summer his attention was called to an orchard that was planted in an old pasture. Instead of lowing the ground large holes were dug. Sheep continually keep the grass clipped short. This year the fruit in this orchard had endured the drouth better than in any cultivated orchard. The Professor said that this was a pointer on how to manage hillside orchards.

An Old Lawyer's Advice.

Congressman Brosius is telling a story about the advice given by an old Lancas ter county lawyer to his son, who was about to practice law. "When the law is against you," he advised, "tell the jury they must regard justice; when justice is against you, direct the jury's attention only to the law." "But if both are against me?" asked the son. "Then talk around," replied the father.-Savannah News.

To Set Before a King.

Procure a pound of the large imported French chestnuts, which are sold by the fruit venders. Cover the nuts with ing water to remove the shells. Make a syrup in the proportion of two-thirds water and one-third sugar, and boil the chestnuts in the water until tender. Take out the nuts from the syrup and peel off the skins. Put into a granite basin a pound of the best granulated sugar, and a cupful of water. Stir gently until the sugar s dissolved, then remove the spoon. When a little dropped into ice water hardens and cracks take the syrup from the fire and out the basin containing it 'nto another of boiling water. Dip the nuts one by one into this syrup, using a small skewer or knitting needle for this purpose, and place them on a platter lined with paraffine paper. These marrons glaces should be made just before using, as they do not keep long.—Washington Star.

Pointed Paragraphs.

Learn to do with diligence what you would do with ease. A remark carelessly dropped doesn't always fall flat. In silence danger is concealed. Women

are seldom dangerous. Unless a man has some knowledge of igures he doesn't count. When a tall man finds himself short he s naturally embarrassed.

The widow's mite is used too often as an excuse for small contributions. Some words on the end of your tongue should be allowed to remain there. A man must feel awfully upset when he finds himself heels over head in love.

It is easy to discourage a man who realizes that he isn't entitled to anything.

Don't seek to know too much. That was where Mother Eve made her great mis-

The one trouble with a lot of poets is they are unable to make the feet lockstep. she invariably loses her name at the mar

riage altar. It was an Irish philosopher who said the strangest things in some newspapers are he ones that are left out. Two persons may be able to live as cheaply as one after they are married—but they can't do it while engaged.-Chicago

Romances in Real Life.

What would the critics say of a romancer should he conjure up situations such as hese, all of which are from real life? For example, Lord Byron risking on the toss of a penny whether or not he should renew his suit to Miss Millbank, by whom his offer of marriage had been several times refused. "Heads" came up. Byron won his bride and regretted it ever afterward.

Count Rumford, wisest of philosophers spending four years in courting La Vois-sier's widow, yet writing of her later, "I have the misfortune to be married to one of the most imperious, tyrannical, unfeel-We have been much interested in the ing women that ever existed, whose per-discussion in your valuable paper on the severance in following an object is only equaled by her wickedness in framing it. My Lord Chancellor Eldon marrying his cook in fear of losing her services and being rewarded by finding that as "my lady"

she ignored the kitchen. Guizot, the great Frenchman, falling in love with a woman through her contribuwinter apple.

We had no opportunity at that time of still unknown to him, fell ill, continuing them under her name, in order that her

Stealing Fruit.

I should like some one to explain to me why stealing fruit is winked at and tolerated by the people more than other forms of stealing. The fruit grower spends time and money to bring a crop of apples, pears, plums or grapes to perfection, and just as he is about to gather the crophaving waited till they should attain perfection in ripeness—he goes out to his trees some morning and finds that during the night some sneak thief has taken them, and perhaps mutilated and ruined the trees. If he seeks redress in the courts the people at large (possibly because very few know how much work there is required to grow'a crop of fruit) are in sympathy with the culprit. When fruit can be bought at the prices now asked there is no excuse for any one pilfering it. Because it is so cheap is no argument that the fruit grower should give it away. . It is his source of income, just as milk is of the dairyman. Because milk sometimes corner? It is almost impossible to grow a crop of fine apples, pears and grapes in

The boys will steal the fruit; and if the owner ever expects to get any at all he must spend more time in watching than the fruit is worth, or pick it before ripe, ahead of the boys. In the country there Pomona Currants for Sale.

We can supply a few thousand only of the plants of Pomona currants. Our plants are large, fine and two years old. We will make a low price per 12, per 100, or per 1000. GREEN'S NURSERY CO.,

Rochester, N. Y.

A shead of the boys. In the country there are rogues who wow every early apple tree, every grape vine, etc., within a radius of ten miles, and they revel in the choicest fruits from July till winter. If by chance one of these rascals is caught and given the full extent of the law, what a shame, the people say, all over a little fruit? Do you know what a mean man every grower.

of choice fruits is in the eyes of the small boys? Why, he is too mean to live. There was once a man, now dead, who lived but a few miles from us, who one night shot a young fellow in his grape vines. The man was hounded and the affair thrown in his face for the balance of his life. Had that young fellow any more business in the grape vines than he had in the man's bedroom?—L. J. Farmer, in N. Y. Tribune.

One year's sweepings of the British mint brought in over \$5,000. On the occasion of a new roof being put on the mint at Philadelphia, it was thought advisable in view of the fact that invisible tumes might have carried precious metals to the ceiling, to melt the lead which formed the old roof. This was done, and gold and silver to the value of over \$800 was thus recovered; but even this sum was eclipsed when on the occasion of a new lining being placed in the 200-foot chim-ner of the assay office in Wall street in New York, the forty-years-old lining yielded 52 ounces of gold and 960 ounces f silver, valued at \$1,500. In 1896 two Brooklyn watch-case companies having amalgamated, a new factory was erected and the old ones were pulled down. Although every safeguard had been taken against loss, the dirt scraped from the floors and out of the interstices of the walls when placed in the smelters yielded \$10,000 worth of gold. When the old government bridge across the Mississippi at Rock Island was torn down it was found that the roof was of copper, and it made a handsome fortune for the contractor who

was wise enough to save it. From the 1000 strawberry plants I got from you last year I picked 625 quarts of erries. The varieties were Jessie and Buach.-Ama Riffer, Steuben Co., N. Y.

Poultry Department of Green's Nursery Co., Rochester, N. Y.: Gentlemen-Barred Plymouth Rock cockerel received to-day in good order. He suits me very well and is the best bird lever bought for the money.

Thanking you for your fair and cour cous treatment, I am-Yours truly, A. H. Burlingame, Adams, N. Y.

"I see that the cream of the British army s now in the Transvaal." "Yes, the whipped cream."-Life.

Paint Without 0il. Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent. A. L. Rice, a prominent manufacturer of Watertown, N. X., has discovered a process of making a new kind of paint without the use of oil. He calls it Powdrpaint. It comes



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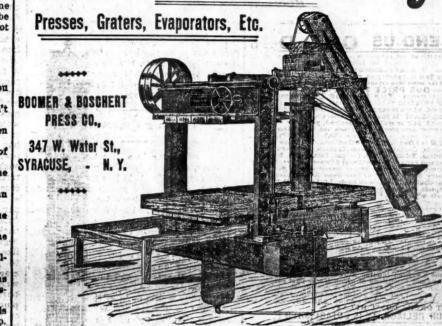
to the farmer a dry powder and all that is required is cold water to make a paint storm proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone, bries and iron, spreads and looks like oil paint and costs about one-fourth what the farmer has heretofore had to pay for paint.

Write to Mr. A. L. Rice, 28 W. Arsenal St., Watertown, N. Y., and he will send you a free trial of his new discovery, also color card and full information showing how you can save a good many dollars. Write to-day.

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Green's Fruit Grower

Rochester, N. Y.

Green's Fruit Grower

A MONTHLY JOURNAL. Devoted to Orchard, Garden, Poultry and CHARLES A. GREEN, Bditor

Prof. H. E. VAN DEMAN, Associate Editor. J. CYANTON PRET. Business Manager Price, 50 cents per year. Postage Free Office, corner South and Highland Aves.

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The circulation of GREEN'S FRUIT GROWES

EDITORIAL.

Life is Short.

When a man gets beyond fifty years of place of oldtime sports. age he realizes what he has not before-the brevity of human life. He sees on every side men but a little older than self, who have struggled frantically in life's battles, have finally succeeded in securing a competency, and after this is was but a short time before death over took them. How true it is that life is too short to be spent simply in making It takes a life time to make money and after the money is made the maker is ready to die.

To the young man things look differently. The span of life seems to be almost He expects to live almost forever. He feels that if he is successful long life of leisure and comfort is to follow. But as he gets older, like those who have gone before him, he will come to the realization of the brevity of life. Since a short life is inevitable what is

continue money making as the prime object of life. When one has enough for his proper sustenance what foolishness to struggle frantically to pile up more. I do not mean that he should retire from business. I intend to work as long as I date the field was cross plowed to the live, but not to overwork, or to embarrass ordinary depth of six inches. To my surmyself with wearisome duties. It is clearthe duty and pleasure of those who have passed middle life and who have secured a competency to look about, seeing what good they can do. If they have children they should realize how much better it is to make them comfortable and happy during the lifetime of the parents, by spending money for their comfort and advancement as the years go by, rather than to leave all their money to them in a lump on the death of the parents, when it possibly may be squandered or lost by poor management.

How much pleasanter, in the minds of the children, will be recollections of those parents who made their early lives enjoyable, by the reasonable distribution of money among them when they so much needed it in their early struggles, than of those parents who parted with their money grudgingly during their lifetime, and left arge sums to be disposed of at their

In church work there is great pleasure to be able to add, to contribute as age and wealth increase. The church is certainly one of the great methods of carrying on good work and exercising good influences, and such institutions should be sustained with liberality. There are also many other worthy objects for which money can be more wisely employed than in accumulating it simply for the love of wealth.

Monotony of Farm Life and How to Prevent It.

Life anywhere may be monotonous. There is monotony on the ocean, in the mountains, in the city, on the farm. Our effort should be to remove the monotonous, or to so vary life as to not allow monotony to

When I was a boy upon the farm my father kept hundreds of ducks, which were exceedingly noisy. They must have been of a peculiar breed since I do not find the Pekin ducks so talkative. Regularly every morning on awakening, my ears would reeted with the gabble and quacking of these hundred ducks. I cannot tell why, but the quacking of these ducks for the time distressed me. If there had been any affected me so seriously. I do not remember that the other members of the

family complained of the ducks. There are many monotonous things about farm life, as there are about living low a plow day after day, week after week, or to follow a cultivator or harrow, or to hoe continually. But how much more monotonous is the work of a house wife in the kitchen, which is nearly the same all the year round? Cooking, washing dishes, washing clothes, froning, bed

ng, sweeping, is continuous monotony. It is not possible to escape monotony it, and we should make a desperate effort along that line. On most farm tables the easily changed by having an abundance of fruit upon the table. There is no cheaper diet for the farmer than fresh apples, pears, peaches, grapes, strawberries, cow and hope for better success.

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blackberries, currents and other fruits of his own growing upon his own land, and these delicacies add much to relieve the

notony of the farmer's table. The weekly ride to church Sunday morning and evening is a relief from monotony. This will suggest to the farmer that he take his wife and children for a ride during the week, after the day's work is done, in the cool of the evening. When you repaint your house you can relieve the monotony by changing the color. If you simply change the color of the blinds the change will be noticeable. You can relieve the monotony of your sitting-room, bedroom, or parlor, by decorating it with fresh wall paper.

I have just finished decorating the rooms of my daughter and my young son; my son is about sixteen years old. I have al-lowed him to have some choice in the selection of the wall paper. The pattern is one of beautiful large roses, which seemed too large at first, but when the pictures and furniture were placed in position the effect was satisfactory. I put a new carpet on the floor of his room. Then with the new paper and the new carpet the other furniture looked dingy and I bought a new bed-room suit. These changes have entirely removed the monot ony of the old decorations and will bright-

en the boy's life. I believe in making home attractive, and n making the children's rooms as alluring and bright as possible. I remember well the sleeping room I occupied on the old farm as a boy. It was a plain, small room. The walls were not decorated in any way, and the outlook from my window was not inviting, yet my people were well-to-do farmers. The principal thing I saw from the window was the big flock of ucks that disturbed me so often.

Wherever we are we will find monotony if we are not busily occupied. Many of my friends are perfectly wretched during stormy weather, but such weather does not disturb me in the least since I am always occupied. I should be dismal indeed if I were not busy about something. Reading is always my pastime when I have no other engagements to attract my attention. Every house should be supplied with books, papers or magazines. A valuable book is a good companion. Books and periodicals are so cheap of late years no one can be excused from not having them on their tables continually.

As we advance in years, and old age approaches, we are in greater danger of uffering from monotony, but even then we may continue to brighten our lives by changing our surroundings occasionally, by forming the habit of being deeply inested in some particular hobby or pur suit, by surrounding ourselves with younger companions, pleasant associations, pleasant scenes, and by walking or driving able fruit, is shortsighted and in a measure out into the welcome sunshine. We may not be able then to climb the mountains camp out upon the brook streams, or trail the antelope or bear, but we can think over our past achievements along these lines, and find something of interest to take the

Subduing Quack Grass.

Near our home is a city lot, embracing six acres, which is completely covered with quack grass. The field has not been under cultivation for many years, and the roots of the quack grass have taken entire possession of the soil. Last fall this property came into the possession of men who seem to understand how to subdue this great

The field was very carefully and thoroughly plowed late last fall. Indeed, a portion of it was plowed in the early win ter when the ground was partially frozen Nothing more was done at that time. The ground was not rolled or harrowed. I noticed that many of the quack grass the best thing we, who are in advance of roots were thrown up by the plow, or middle life can do under the circum-stances? Surely we should not simply exposed to the frost of winter and were

The field was not again touched until about the first of June, when the surface began to look quite green, the roots having sent out fresh blades of grass. At thi prise I found that the sod had partly cayed and become subdued, so that it did not interfere at all with cross plowing It is remarkable that a stiff quack grass sod should thus disintegrate during the few months of winter. I know that sod will very soon rot in hot weather when turned under with the plow, but cold

weather retards this rotting process. After the second cross plowing the field eemed to be in fair tilth. Then the harrows were set to work, and this brought to the surface a large number of quack grass roots, some of them dead-the most of them alive. These roots were gathered in piles and burned. It looks at this moment as though there would be no difficulty, and but little expense in entirely subduing the pest. And yet there are many farmers who think it is impossible to destroy quack grass. I assume that the owner will continue to cross plow and to harrow, and rake up the roots, until there is not a spear left growing of this great nuisance upon the beautiful tract.

Not far from this lot is another side hill, which was purchased by our city authorities as an extension of Highland Park, which was also thickly covered with quack grass. The quack grass on this land, embracing ten or twelve acres, was entirely destroyed by grubbing the roots out by hand work and destroying them. This was an expensive process, and I vondered that a less expensive method was not adopted, but at the present moment there is not a spear of quack grass in all that part of the park, which is at present largely occupied by beds of flowering plants and shrubs.

Cows Dying.

I have always kept at my Rochester place a good Jersey cow for the home supply of milk and cream. A year ago this spring I lost one of these cows, which I would not have sold for one hundred dollars. I had a veterinary to attend her, but he seemed unable to relieve her in the least. There was something clogging her stomach. Cows cannot feed on dry bran and meal safely as can horses, hence the

I at once bought another Jersey cow, handsome animal, and at the same date this spring she seemed to be attacked in the same manner as the previous cow, and although I had a veterinary attend her, she also died. Neither of the above cows

box stall 10 x 10 feet. On this occasion I had a post-mortem examination made and the veterinary found place a square wooden rod in the center, in the cow's stomach four yards of cotton the head being in one end of the keg, and cloth, which partially closed the passage then fill (pound in) the keg with cement and caused her death. It is impossible for and gravel carefully mixed and wet, the us to surmise where the cow found the result will be a desirable roller for the cloth, and why she should be tempted to garden or lawn. The shank you place in swallow it. I am told that cows often the center of the keg will be in the center chew cloth, sometimes partly destroying of the stone, and will answer for an axlegarments along the pastures left by men at tree to the roller. After a day or two you work there. I mention this fact to cau- can remove the slats and staves from the

Selling Immature Fruit.

At the last meeting of the New Jersey Horticultural Society, prominent members stated that it was their practice to pick grapes and sell them as soon as they begin to color, and long before they were mature or fit for eating. A feeble protest was made against this practice by one or two members, which seems to have been overwhelmed by the zeal of the sellers of green fruit, who contended that they were in the business for profit, and for nothing

sighted view to take of the business of fruit growing. Their idea is that no mat-ter whether the fruit is eatable or not, or whether it will cause distress, sickness, or death when eaten the only question is, will it pay for a moment any profit to the

The offering and sale of such immature fruit seems almost as great a fraud as would be to color marbles, or pebble and attach them to stems and sell them for eatable and digestible fruit. The fact is that those who sell such immature spec imens destroy the market for fruit. They "kill the goose that lays the golden eggs. If a consumer buys a basket of fruit which is distasteful, that person is disgusted and the fruit market has lost a

patron. Supposing that the growers of raising had reasoned as do these sellers of green fruit: that it matters not what the quality of raisins is as long as they could b sold at a profit, and that thus the raisin growers had offered raisins that could not be consumed. Where would now be the demand for raisins? Raisins have been found by actual test desirable, and they are in demand in lots of countless car loads annually.

The same may be said of dried prunes These prunes have been found a desirable healthful, also a nourishing food the world over, and the market for them has been increasing year by year steadily. The quality is so good people are learning to eat them out of hand as they would figs, chewing them carefully. A laborer may thrust in his pocket a few dozen dried prunes and eat them uncooked with his noonday lunch, with relish and with profit. But supposing the growers of these prunes had argued it did not matter whether the prunes were picked when green, or were uneatable, so long as they could sell them? Where then would have been the market for dried prunes? Instead of people having learned they were desirable, healthful and toothsome, they would have discovered they were of no value, and there would have been no de-

Surely the sale of green fruit or uneat

The Difference.

Have you seen a dwelling, the grounds of which are barren of vines and trees? Have you seen a farm upon which there is no orchard or fruit-bearing vines? Have you seen these homes or farms after they had been beautified and made

fruitful and profitable by the judicious planting of hardy fruit and ornamental shrubs and trees? Bring these opposite pictures to your mind and you will see how easily a home

can be made attractive and an unprofitable farm profitable, and at what small cost. As to prices, we will quote some

"He who plants a tree, plants hope." treeless place cannot be a happy home for children, or wife, or husband, or friends. He who surrounds himself with trees, surrounds himself with friends. Surely be is your friend who presents you with numer ous baskets of golden Bartlett pears, or Crawford peaches, or Diamond grapes, or blushing strawberries, cherries and rasp berries. Then why are not these trees and plants your friends, since they pr with such gifts so freely? Not only do they present you with healthful and toothsome fruits, but with cool shade and fra-

Artificial Stone for Sidewalks, Cellar Bottoms, Stable Floors, Etc.

There are many people who are not aware that it is easy for any competent person to make artificial stone by the use of Portland cement carefully mixed with gravel and sand. We use one part of Portland cement, and four, or five parts of sharp sand and gravel mixed. For cellar bottoms and sidewalks, we apply on the surface a slight covering, compo one part of Portland cement and two parts of sharp sand, without gravel. We have made walks around our Rochester home in this manner, which are superior

to natural stone. We excavated six inches deep where the walk was to be laid, removing the soil to the highway. We then filled in the excavation three or four inches deep with coal ashes and cinders; coarse gravel is just as good. This was firmly hammered down and over this we applied the coarse gravel mixed with Portland cement (moistened) having strips of 2 x 4 scantling on each side of the walk to hold the cement in position there. Cross sections of the same timbers used crosswise so as to make the blocks of the pavement about four feet in width, laying only one block at a time We placed a strip of tarred paper the thickness of the walk between each section of the walk, so that heaving by frost in the spring would not break the stone but allow one to rise above the other. Cementing cellar floors is much easier than building walks. Our cellar bottom being sandy naturally, all we did was to spread two or three inches of cement over the bottom of the cellar, and smooth it down. We did not use any gravel in this cellar bottom, but in most cases it is advisable to have three or four inches of gravel spread over the cellar bottom, over which the cement and sand mixture is spread. Cellar floors do not have to be so thick and substantial as outdoor walks. We keep large quantities of coal in our cellar and find it a great advantage, having a smooth cement floor for the coal to rest upon, since it makes it so easy to shovel

the coal on this hard floor. Cement floors are now used for stable floors, and are advisable, since every par-ticle of manure can be saved by this method. These floors have to be as thoroughly made as cement walks in order to stand the strain.

Rollers for garden, or lawn, can be made of this cement; also stepping blocks from which to step to carriages, water troughs, had much exercise. They were kept in a and many other items can be made of this cement and gravel in proportion above

ild be excavated at least to the depth

of eighteen or twenty inches from the pro-posed finished surface. Then, after the earth has been thoroughly rammed, a coundation of clean cinders, coarse gravel, broken stone or brick should be filled in so as to leave room for at least four inches of pavement. Care should be taken in making this foundation to keep it continually wet and rammed in layers.

"On this foundation should be laid a ayer of concrete at least three inches thick and mixed as follows: One barrel of Portland cement, two barrels of clean, sharp sand, and four barrels of clean gravel or broken stone, size about coarse one and a half inches. Cement and sand should be thoroughly mixed dry, and then wet before adding the stone. This mixture should be thoroughly turned over and mixed about three times.

"Above the concrete there should be a finish, or wearing surface, composed of one part of Portland cement to one and a half parts of clean, coarse, sharp sand. The oncrete and finish surface should always be laid at one and the same time, and care should be taken not to expose surface to the hot sun.'

How Trees are Anchored.

Last night as I was sitting on the porch with friends, a strong wind was swaying two large horse chestnuts on the lawn. Some one remarked, "Is it not strange that such heavy top trees are not overturned in a gale?" Surely it would seem strange to those who do not know how firmly nature anchors a tree in the soil. It does not seem possible for a man to anchor the roots of a great oak so firmly in the soil as to prevent its being overturned in a hurricane. But nature

the following instructions: "The ground a tree, although the pressure upon its top PRUNING CURRANT BUSHES. in a gale may equal the drawing power of a thousand horses.

Recently a sewer has been placed in the street opposite our place, and I have been able to observe in its deep trench the root growth there of maple trees. I find the soil absolutely filled with rootlets at a distance of twenty feet from the trunk of the tree. Doubtless these small roots extend thirty, or possibly, forty feet on al sides, filling the earth from near the surface to a depth of five feet, many of the roots running ten or twelve feet, or more,

It will seem that there are millions of roots, of various sizes, mostly small roots, branching out in every direction, each one of these roots assisting in some degree to anchor the tree in its place. The roots answer the double purpose of conveying nourishment to the tree, and supporting it in its position.

I was once associated with a queer man who had a propensity for awakening peole at night for trivial reasons. If he could hink of no other reason for disturbing my dumbers, he would rap loudly on my door, "Hello," I would ask, "what's wanted?" "Is there anything I can do for you?"

asked my tormentor. Of course there was nothing for him to do but to get out and allow me to repose a peace. After a time this fiend adopted new method of torture. There were a lot of us occupying adjoining rooms. One night we were aroused from our deep slumber by tremendous hammering in our neighbor's room. We hastened there alarmed, and found the tormentor pounding at his bedstead with a hammer. 'Is your bed broken down?" we asked.

"No, but I was afraid it might break lown," replied the tormentor.

Potash put down the drain-pipes will pre-

Experience of a Successful Currant Grower.

After having looked over a block of you do with these bushes for another ome thousand plants of Fay's currants which had yielded about seven thousand pounds the past season, one is led to ask the methods pursued in pruning these bushes. We were informed by some peo ple that pruning is not necessary.

"Well, you do something in the way o pruning each year?" "Yes, I prune out the branches that are

in the way of the cultivator." "What about last season's growth, do you prune it at all?" "Well, you see that these branches have

not made much of any growth at all." "Do you consider your currants in a healthy condition when they are not making any growth?"
"Yes, currants cannot produce both wood and fruit the same year. You see that these bushes have now yielded me 7,000 pounds of fruit this season, which

they could not have done had they made a vigorous growth for they certainly would have run to wood more than to "When you first planted these currants what method did you pursue in the way

of pruning?" "We did not prune at all the first year. The second season we pruned slightly, leaving the strongest shoots for the next Smiths also have 200 acres in peach trees season's fruit. After that for a year or in full bearing, and this year introduce a so we pruned the bushes buring the winter new seedling peach, the Lamont, of high months, cutting back about one-half of quality, some specimens weighing 17 each season's growth. There is something ounces, and running 10 to 12 inches in cirpeculiar about currants, as well as other cumference. About 500 bushels of the fruits. One has to study his soil, and to fruit have been grown this season. It is use every care to see that a current bush not the intention to sell any trees of this

duce too much fruit in one year. I do lot use any manure on my currants, but they receive thorough cultivation. As you see my soil is a sandy loam. I have sold the fruit from these bushes this season at from five cents to seven cents per pound."
"When this fruit is picked what will

"I shall not do much of anything, but give them good cultivation. As you see they are in a healthy condition but have not made considerable growth since we have been very careful to prevent an overgrowth as they cannot produce wood and fruit at the same time. Many men growing currants are under the impression that they must get a large growth of wood to insure a crop. This has not been my experience. All I need is to keep the old wood in a good healthy condition, and my currant bushes will produce annually large crops of fruit."

Note: We manure our currant bushes, An important item is thinning the bearing canes, so that too much fruit will not form. Four to six bearing branches are enough.-Editor Green's Fruit Grower.

Geneva, Ontario Co.,-There are two famous orchards in this vicinity-one, the apricot orchard of E. Smith & Sons, said to be the largest east of the Rocky mountains; the other, the Quince orchard of T. C. Maxwell & Brothers, said to be the largest in the United States. The

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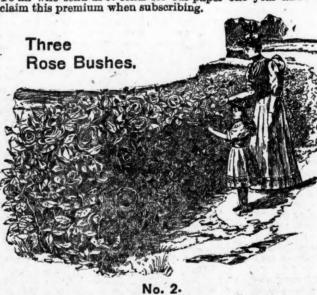
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SIX strong plants of this valuable Strawberry, very early, perfect blossoming variety, of large size, fine color, firm and productive. Is desirable for home use or for market. To all who send us 50 cents for our paper one year and who claim this premium when subscribing



We offer three two-year-old hardy, outdoor rosebushes, which will blossom same year planted, and will be of the choicest varieties. Ordinarily roses sent out by mail are green-house plants not one-tenth as large as those we offer: one of our roses is worth ten of such green-house plants. These bushes will be sent to all who send us 50 cents for this paper one year and claim these as premiums when subscribing. We will select one pink, one crimson, and one white bush from the following hardy hybrid perpetual varieties: Gen. Jacqueminot, Prince Camille De Rohan, Coquette Des Camille Des Rohan, Lohn Laing. Blanches, Coquette Des Alps, Paul Neyron, Mrs. John Laing John Keynes, La Reine, La France. The selection must be left entirely with us.



All plants will be mailed in spring. emiums named. Order by number.

No. 3. Clematis Jackmanni.

Never before have we been able to offer as a premium a clematis. We now have a nice stock of the Jackmanni varietythe most desirable one of all. The flowers is one of the most valuable premiums when fully expanded are from 4 to 6 we have ever offered. It is a nickel-

send us 50c. for the paper one year and claim this premium when subscribing.



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Four well-rooted plants of the new Red Cross Current, the most remark. able current of the present day for family use or for market. Very large, very vigorous in growth, clusters all six inches long. To all who send us 50 cents for our paper one year and who claim this premium when sub-

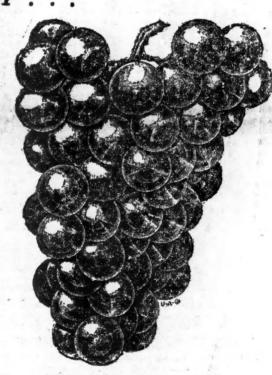


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With your name and address. This when tany expanded are from 2 to 0 we have ever offered. It is a nickelinches in diameter; intense violet purple,
with a rich, velvety appearance, distinctly veined. It flowers continually from
July until cut off by frosts.

We will send one nice plant to all who
send us 50c. for the paper one year and
We have ever offered. It is a nickelplated machine which you can carry
in your pocket, with self-inking rubber
type, which stamps your name and
address on envelopes and letterheads,
so that your letters cannot go astray.

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No. 6-Campbell's Early Grape.

The earliest and best of all the black grapes. A wonderful producer of fine fruit, which sells ahead of any grape. Vine vigorous grower, fruit black, large bunches and fine flavor. We have on hand extra fine well-rooted vines of Campbell's Early, and will mail one to each subscriber who will send us 50c. for this paper one year and claim this premium when subscribing.



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We offer your choice of Green's Books as premium to all who send us 50 cents for this paper, and who claim the pre-miums when subscribing. These books are as follows:

No. 9-American Fruit Growing. The newest book, handsomely illustrated, 130 pages, devoted to Peach Culture, Pear, Quince, Currant and Small Fruit Culture, etc. See advertisement in another column.

No. 10-Green's Six Books. On fruit culture, devoted to Apple, Pear, Plum, Cherry, Raspberry, Blackberry, Strawberry, Currant, Gooseberry and Persimmon Culture. See advertisement in another column.

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GREEN'S FRUIT GROWER, Rochester, N. Y

OMEN'S D The hand tha rules the wo Don't Mir hear, in all rinder's goin naow, I don' one an' merrie ain sech thing

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the sills. In fact

find any interes

use cleaning by pull g to rights, little she proceedsone ro ethought. car be ca le things, buwhat omfort. Oe wor her pocket a mall, or three nelles some one as sur then her tought ted. Anothe will ceries made ut ea en it is very torm leave it at th store in the wet. But t this wise forthou ach them to be adus y save many a tothe boy or girl is ut un a't think that tead bits will come of the dinned into the lite and there and there a little and there a little to spend money c. Even for the eek may e made a ourage a trict accorded the little girls ar

the Paper for the Family

MEN'S DEPARTMENT

The hand that rocks the cradle

Don't Min' Tellin' Yew."

en for Green's Fruit Grower by N.

er hear, in all yer life?
Grinder's goin' tew git er wife!—
w, naow, I don't mean thet, jest quite,
gone an' merried Peter White.
blain sech things is jest absurd
ever, never shud accurd;
out twenty 'n' she sixteen!
on't folks wed afore they's wean?

dist critter 'n seven zones, ter merry Parson Brown, n'list man threwout ther taown; cross, swarin' Jonnie Dean,

ood gall as e'er wuz seen, in. tew. Jemima Bean,—

me meddlin' mongst my nabus,

we hundrud, clear an' calm, hundrud inter det, Hobbs who'll hev it yet,

h thet's paid upon't, Miss Snaggs tew want.

stid? It is mean!

min' a tellin' yew,

ock and forty-five,

thir I clean a' most forgot,
I nst ell 'n' leave th' spot:
Grhell took ter chawin' barker
mok' jet like any tartar.
Tomy'capable 'n' smart,
son e'll 'dull as er cart.
s ric Johnjacob's gall, I hearn,
sonerway, her keep ter earn.—

NLY IWOM N'S THOUGHTS

Usefu Oblong.

tten forGreen's Fruit Grower by ou

We all the we know what eggs are for

be, aside tom eating. Many a woman

s to her sall income by the egg money

m, the white f an egg applied, removes

rt milk and with a little sugar are gen-

beatn with par sugar, and with a

for loarseness and certainly is very

sant o take. Yany public speakers

gh dros generally sold by druggists for

t troibles. If a bt of paste is wanted

hite of a raw egg, better than muci-

shells colored very prettily or small

pasted on and given to the chil-

girl very happy by preparing a

lled with colored eggs at Easter

hells. In fact an inventive faculty

find many interesting ways of decora-

I haven't begun to finish the list of

the good qualities, in our beautiful ob-

te us hankful to Biddy, and to take

THE WOMAN WHO PLANS.

care of her.

to ma

but enough has been suggested to

anything by planning," said a

housewife to me, and a wise

ipon us, a hard, disagreeable

it easier by careful consid-

"done with it." A few

or and weeks of sorrowful

ig by pulling apart, and set-

lought is a most invaluable gift. To

ne it comes naturally, but if deficient it

orth air effort to attain. The clean-

at the best, but very much can be

on, and above all, moderation. One

m days the first of March saw all the

part of the house pulled up and gal-

of soap and water poured over walls

floors to verybody's discomfort. The ther changed. Her girl took a severe

and feve followed and of course

ng with a orn-up house besides. An-

er neighbor is not deceived by a few assant days i March but she begins her

o rights, a little used chamber, and

e proceeds one room at a time. This

things, but what a difference it make

or three needles and thread. At pic

in the wet. But it is with children

boy or girl is not under her direct care.

may be made a valuable lesson and

the little girls and boys too, to sew

young man, now a soldier,

ught. can be carried into so many

neighfors was determined to "get

letting her give them to all the

Very funny faces can be drawn

little basket. One mother made

Biddies

supplie

ought t

bone,

rrespondent, Sister Gracious.

oten can tell how useful they

on the grocer's bill if her

eggs enough to add to the

mother with young chil-

eep a dozen at least on

dislodge it. If it.

as some children seem

roars with her smarting

If Jimmy swallows

d gracus! Sue as I wus born, man stootin supper-horn!

aggs, as is most thre bo't th' Perry Farm

number one, as trubbles me,,

Nancy Harner Sally Jones,

ules the world."

ruit in one year. I do are on my currants, but ugh cultivation. As you andy loam. I have sold se bushes this season at seven cents per pound." it is picked what will se bushes for another

much of anything, but ultivation. As you see Ithy condition but have rable growth since we careful to prevent an y cannot produce wood ame time. Many men are under the impression a large growth of wood need is to keep the old aithy condition, and my produce annually large

re our currant bushes. is thinning the bearing much fruit will not x bearing branches are reen's Fruit Grower.

Co.,-There are two this vicinity—one, the E. Smith & Sons, said ast of the Rocky moun-the Quince orchard of Brothers, said to be United States. The 200 acres in peach trees d this year introduce a h, the Lamont, of high imens weighing 17 g 10 to 12 inches in cirut 500 bushels of the own this season. It is o sell any trees of this

TO

1900. Please e have decided by mail, post-

ne letter claim ter, since it is



v Grape.

k grapes. A wonder ahead of any grape ge bunches and fine A wonder well-rooted vines of each subscriber who year and claim this



is to-day the largest, aspberry in existence, vill be given each subnds us 50c. and claims

oks as premium to all who claim the preare as follows:

Growing. lustrated, 130 pages, e, Currant and Small another column.

Books. Pear, Plum, Cherry rant, Gooseberry and in another column.

eping.

pared with great care, oultry Keeping. See se books.

changel n varieties of

have thanked my mother once I have a dozen times that she taught me to use needle." It is no easy work to run a house-hold wisely and well, and no one needs to pray more earnestly than a wife and mother for a "right judgment in all things.'

A PLEASANT MEDICINE.

The time may come that we shall see on every corner, instead of a drug store, with their big glass bottles, a most inviting array of fruit. The proprietor will not boast that in six months he has sold five hundred thousand two-grain quinine pills, but that his customers brought apples by the bushel, and his sale of fruit of all kinds doubled every year. Neither will the women spend hours daily rolling out pie crust and putting the luscious fruit between two pastry crusts. Neither will they have to read with shame that in the United States alone eight hundred and nineteen million pies were made every year at a cost of one hundred and sixtyfour million dollars. Think of the lusciou fruit that vast sum could produce and the bounding health if it was eaten by the First nervous, ailing American women. come apples, fortunately in America, plen-tiful and cheap. No need to drown the pleasant flavor in cinnamon and nutmeg, but served at every meal in a pretty dish the family will soon eat them, and not sigh for pie. Let the children have access to the barrel, and they will not be troubled with throat diseases or bowel complaints. We often stop eating fruit in winter be cause it is expensive, and eat pork and fat meats; then come hard colds and a general debility towards spring, with a doctor and a medicine bill, as a mournful accompaniment; whereas, more fruit would keep the system clear, eyes bright, and instead of good money going for nasty drugs, wo would have a snug little sum in the bank. There was a time when oranges were con sidered a luxury for the rich. In my father's household there were a half dozen children, and he would bring home two or three oranges, carefully dividing them among us, we were thankful for a small among us; we were thankful for a small saw a banana until I was grown up. Now they are very plentiful, but ought to be cheaper, as easily attainable, and sold as reasonably as a glass of beer. Dates, too are very wholesome in counteracting a heavy winter diet. Let us women, this year, stop making pies, and have fruit on the table every meal. We will find, instead of its costing more, our expenses will be less, for we shall save on doctor's bills and A LITTLE FORETHOUGHT.

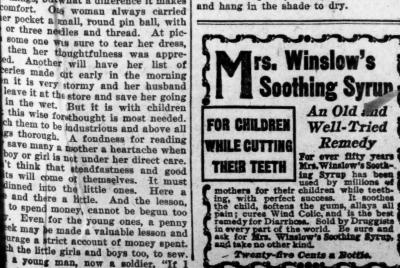
and to be equal to our duties from day to day. This delightful condition is not brought about by taking whole bottles of patent medicines, or visits from the doctor, but by careful consideration and wise forethought. Here are some simple rules that are suggested by my own experience. Let two per year for several years. But last the patent medicine advertisements se- spring they were quite numerous again, so verely alone. Scarcely a day passes but a I have some hopes. The king bird is about leaflet or almanac is left at the door. Full of symptoms of all kinds of diseases one mer, the crown thrasher has been gone for cannot read them without going over in ten or more years, and the larger woodher mind, this or that bad feeling, and deciding that a bottle of this "cure all" and owls are much scarcer than formerly must be bought and that is exactly what and so on. the druggist or maker of the stuff wants to have you do. One afternoon, after a and what are we going to do about it? front steps and read it. It treated of heart to charge it to feminine failings. good old doctor told me, when I went to sons for the passing of the birds. him in great distress, that my heart was say that earlier haying uses up the bobo-as sound as a nut. Again, skip all the ac-link, the fields being cut before the young counts of murders, hangings and direful are out of the nest. And blue birds, accidents from the papers; they are not crown thrashers and woodpeckers, besides good things to go to bed on, and especially many others are wildwood birds who have stinging pin. They are good for Pleasant structured in the state of the talk at meal time. no use for civilization. The careful farmer easant conversation at table promote likd by cildren. A raw egg in the e evry moning makes it as clear as wine and is a very good tonic, espe-y forconvalements. The white of an a "cure all" we have in the faucet over drop of lemon juice added is very quiet a restless baby and send us off into a quiet sleep. Right over our heads shines nger take this in preference to the the life giving sun and most of us shut out the healing rays for fear the carpets or wall paper will fade, and worse than sten a photograp on a card, or to all, we keep ourselves in the house where paper over a glass of jelly, here is an hour a day at least, spent in the garden or even on the sidewalk if we have no An ngenious wonan can make ingarden, would make us healthy. Now one ng things with the shells after the rule more, the most important of all. Have are blown out, by making a hole firm belief in the good Father above that end, and then bliwing with the through the egg. They can be dyed He will care for us. Not only in the important things but in all the little worries

Flower Loving Women.

that come to all of us every day.

Editor Green's Fruit Grower: Permit me, through your columns, to speak to the flower-loving women of your great family circle. We have learned by sad experience to be very suspicious in regard to the glowing accounts of novelties catalogued each year, but I must say no catalogue yet has praised too highly the Rudbeckia or Golden Glow, as it is sometimes called. Give it a rather moist situation, good soil, slight shade, perhaps, in the hottest part of the day, and you will be rewarded with a magnificent plant or clump eight feet high, loaded with hundreds of great golden yellow, double flowers, lastng for weeks and furthermore it is perfectly hardy. It is grand for church decoration, either alone or combined with Hydrangea Grandiflora, which blooms at the same time. It increases rapidly and should be divided at least every second year. Try it, my flower-loving sisters .-

To clean a white straw hat. Take all the ribbon off the hat, and brush it well Then cut a lemon in half, and rub the hat well all over; use the second half of the emon to finish off. When all dirt is renoved, place on a table in the shade to dry. To wash delicate ginghams without fading add a tablespoonful of turpentine to a gallon of lukewarm water, and soak the garment in this for an hour; afterward wash clean in warm suds. Do not let lie, but rinse it quickly through several waters, and hang in the shade to dry.



A Plea for the Birds of 1900.

Written for Green's Fruit Grower by A. Famed Webster plead the woodchuck's cause That undermine our trees,
And "chuck" has flourished ever since
In opulence and ease.
"God made the woodchuck," Webster sald;
We say, "God made the birds;"
But no dear bird, allve or dead,
Is guilty of such deeds!

So amateurs of fashion plates So amateurs of fashion piates
Just listen to our plea,
To save the lovely birds this year
That nest in bush and tree.
First, then, please spare the Oriole,
And plucky Chickadee;
Methinks they have prepared a glee
To sing to you and me.
Slay not the trilling Bobolink,
Nor Meadow lark to-day,
But let them oft with Rob. Redbreast
Rehearse their roundelay.

The gorgeous tinted Humming Bird,
That flits among the flowers,
O harm it not, 'twould be a sin
To blight its gladsome hours.
The Whip-poor-will, the Grossbeak.
The Martin and the Swallow,
Have such important trusts to keep
On each recurring morrow.
Dear canary birds that vocalize
Praise hymnals for the spring,
O, who would silence their sweet notes
For any meaner thing?

Is it not strange in this ripe age Of mighty independence,
We borrow from the Sachem Sage
A fashion for descendants?
Oh! Beauty's tints will fade away
And dainty plumes will, perish,
And "pretty is that pretty does"
This motto, let us cherish.

Our plea transcends mere song of birds, While foes that vex the farmers, In millions, billions, countless hordes Assume control all summer. The coddin moth, the canker worm, The beetle and the borer. The caterpillar which may turn And be a fatal tree explorer. So let the birdlings live this year That when fair autumn greets us We'll find no subways in our fruit No railroad tracks to cheat us.

N. B.—Over one million five hundred thou-sand birds were sacrificed in Venezuela, S. A., last year for fashion's sake.

English Sparrows and Other Birds.

Written for Green's Fruit Grower by E. S. Gilbert, N. Y. Miss (or Mrs.) Mell Mintern, in her in-

eresting letter in March Fruit Grower, wants to know how Eastern farmers com bat the English sparrow. So far as I know the farmers here in Western New York are not doing any combatting, they are per fectly indifferent. I have torn down and destroyed half a dozen nests of young one in my time but I doubt if any of my neighbors have done even this much. It seems to me that the sparrows do not increase very much of late years. Miss Mintern thinks they are bad for the wrens in her section, but with me the wrens were gone before the sparrows were numerous enough to cut any figure. The blue bird has seemed almost extinct; I saw only one or done, I only saw one bobolink last sum-

Now what is the reason for these things busy morning, I picked up a leaflet on the agree with Miss Mintern that it is unfair disease and all the symptoms were de- like to see birds on hats and if I had my scribed at length. It seemed as if I had way every sportsman's gun in the land een through most of them and many would hang fire for four hundred years to sleepless hours that night followed. My come, but these things are not all the reats the dead and dying trees in his wood good digestion, and at the breakfast table lot for fuel and soon there are only green particularly. To start the family off for and growing trees; the woodpecker see the work of the day in pleasant mood is nothing worth while there and goes on. Or half the battle. We little appreciate what you ditch a marsh and think you have done wonders, but the redwinged blackbirds the kitchen sink, or in a good well of wish you hadn't done it. And so on water. A bowl of hot water sipped slowly through the list with many and various dewill relieve indigestion or a cold, often tails. If we really want to reinstate the birds we had better leave the country ourselves and let it he reforested again: this would certainly benefit many species. ught not to surprise us that birds adapted to forest life do not like cabbage fields and yet if they do not it is laid to the women me people are perfectly happy only when writing against female shortcomings. If the law should decree that every lady must vear seven sparrows on her hat or go to prison do you think it would exterminate the sparrow? It would not nor anything like it. In spite of all our kicking and cursing the sparrow has conquered us with all ease because he finds favorable condiions, while our woodland species do not. Let the land be again covered with forest and the sparrow would be the one to dim nish. Let Miss Mintern make the doors to her wren boxes just large enough to admit the wren, then the sparrow cannot enter and there will be no more trouble. Miss M., she says, has the horrors when she thinks of birds becoming extinct. So do I, but there is another way of looking at this.

Aunt Jane on Newspapers.

operations or not.

She and I will cease to worry about such

things one of these days and our children

Written for Green's Fruit Grower by Kate E. Schluffarth.

I usually am a quiet body: I stay at home and do my own housework, and don't find time to do much more outside work than just to run down to Mehitable Ann's once or twice a month. I don't even find time to read the papers. John, he takes a daily and two weeklies and reads parts often twice. I don't see how in the world he does it. But, as I started to say, I usually am a quiet body and don't get excited easy. But the other day when I was down to Mehitable Ann's I did get dreadfully upset. You see it was this way: Mehitable Ann had to go upstairs and coax the baby to take his nap (she has an awful nice baby, so smart for his age, he's only five months old). Well, as she was so I set down and as I didn't have any work I icked up her paper and thought I

The first thing I see was "Pitched Bat-tle in Hayseedville," in big letters. "Why," thought I, "that's my own town; queer John didn't tell me about it before; but I guess he was too busy with the election. Right in the next column in big letters, too, was "Big Blaze in Jonesville." Jonesville is only five miles off, so I read that, and, would you believe it! I found that the town was in ashes and lots of people homeless. And right below that was a little place that said that Jed Thomas was killed

Mehitable Ann came and showed me some short dresses she had been making for the baby. But I didn't have a bit good visit, and when I got home and was getting supper my mind was that full of the poor, suffering people of Jonesville, and Jed's poor wife and ten children, that I put the coffee in the teakettle and sweetened the bis cuits, and when John came home and I

told him all about it, he just laughed and said, "The battle was only loud talking of the township caucus, and the fire at Jones ville was Josh Edward's barn, and Jed Thomas is electioneering just as hard as seed-oil.

Well, I made up my mind then and there that I was thankful I wasn't John and had to read a daily and two weeklies to hold my own in politics.

Hints to Housekeepers.

Baked peaches were recently served and proved a rather unusual dish. The peaches were peeled and baked in a pan as apples are. A little sugar and water with a small piece of butter were added, making a syrup that was used to baste them with They were cooked tender and served cold, with the syrup jellied around them. Whipped cream was sent around with the dish, the value of which rests in the fact that fruit which is not ripe enough to be offered in its natural state may be used in

this way.

An old method to get rid of cockroaches is both simple and efficient. This is by the use of the common red wafers that may be had at any stationer's, and which are, it seems, a food much esteemed by the insects. They eat them greedily and die

A new treatment of Agara linen consists in having it embroidered in coarse silks of different colors with Indian beads strung between the stitches. A large table square in dull olive green is worked in the way I have mentioned. It may be bought for \$4.50. This work may also be had by the yard if desired, and it would make good curtains hung straight over lace inner curtains, ending at the window sill with seats

beneath covered in green corduroy. A bit of economy as well as an improve ment in the service of the egg in which croquettes or fried food is to be dipped before being rolled in bread crumbs is to add to it a teacup of boiling water. Use the whole egg and beat lightly to break it

up before pouring in the water.

The despised codfish ball is quite transformed if it is moulded in croquette shape and offered with tartar sauce.

Broiled dried beef will pleasantly relieve the monotony of breakfast bacon. It may be served with or without poached

If kerosene is rubbed with a flanne cloth, on steel knives that have become rusty, and they are put aside for a day or two, the rust will be loosened and they may be very easily cleaned.

A pretty brown ware with a high glaze now to be found at most of the house furnishing shops and departments. Little individual baking dishes with handles are especially attractive, and the morning egg served in one of them takes on quite a ashionable air. There are also oval covered dishes for baked beans and various Little pitchers, oatmeal bowls and chafing dishes, too, are to be had. The ware is extremely durable, as well as

The Well-Dressed Woman.

A well-dressed woman is not necessarily expensively dressed, and it is possible that clothes may be both costly and well made and yet the general appearance of the wearer anything but desirable. The reason, then, will probably be that her clothes are not suitable for the work or the pleasure that she has in hand, or that their colors are not well chosen, or that they are not neatly and trimly put on. There is an impense deal in the way people put on their lothes; some people are always neat and dainty in every tiny detail, and others say that "so long as the general effect is good little things don't matter," for it never occurs to them that it is just the attention to 'little things" which makes good general effect possible. The woman of refinement is never loudly dressed, but she is always absolutely dainty. She may be poor and have to earn her living, but still there will be no mistaking her. She will perhaps wear a somewhat shabby serge costume, but it will be well brushed, and instead of decking herself out with fluffy lace and ribbon neck arrangements, which soon crush and soil, you will notice that she favors linen collars and cuffs and a neat tie. never guilty of overdressing, a fault more common with the average than with the wealthy woman, for though "the sweetest blouse in the world-all tucked silk and lace," and "a darling little rose toque" are to be had in sale time for about the same sum as she would have to give for a wellmade cotton shirtwaist and a simply trimmed straw hat, she knows that the former would be out of keeping with the rest of her clothes and her surroundings generally, and that, being unsuitable, they would look vulgar, however pretty they might be in themselves.—Philadelphia

Society Girl on Stage—Could not Act as She Did in Private Life.

will not miss what they never knew. When was young wild pigeons were apt to come The daughter of a wealthy and modish in vast multitudes and though I never shot family desired to become an actress. She was young, beautiful and ambitious. She any nor wished to do so, it was glorious to watch the swarming flocks and listen to had several interviews with a dramatic the roar of their wings. They are all gone manager. now, greatly to my regret, but I notice that

"You have the right personality for small part in a piece I am going to bring out," he said. "It is that of a lady acmy children who never saw a pigeon are not worrying in the least. The great law of change goes right on whether we like its customed to the most refined society. "My mother is 'at home' Thursday after-

noons," the girl replied. "You will receive her card. Will you devote an hour to observing me there?" The manager consented. He found that she was, as he had expected her to be, a graceful, gracious belle among the modish guests. He told her that if she would try

to preserve the same manner at the recep tion in the play he would take the risk of engaging her. "And now I have something to ask of you," she said. "It would not be hard for me. I think, to behave exactly as I do here: only, would I feel the same in the kind of

drawing-room you would place me in? You "Yes," the manager replied. "You mean that you would miss the beauty and lux-ury of this apartment. Everything here is in taste, even to the smallest touch of of the room is just what I want for the scene in the play. If your mother will give me the facilities for my artists I will to purchase a new hat she decides reproduce it faithfully. Oh, don't thank

The manager kept his promise. The drawing-room in the play duplicated a section of the one in Fifth avenue: and was not less costly so far as it went. And the girl? Well, the open end of the room was toward a public audience, and that scared away her fine air. She was absolutely awkward on the first night, and it was not until after a week's experience that she place that said that Jed Thomas was killed by a runaway horse. Jed and I used to keep company, so I felt dreadful bad. I begun to have feelings down my back when

Things Worth Remembering.

To stop bleeding. A handful of flour ound on the cut.

A red-hot iron will soften old putty so that it can be easily removed. A sun-bath is of more value to health than much warming by the fire. Mix To cure a sting of bee or wasp. common earth with water, and apply at

To prevent doors from squeaking. Oil the hinges with a feature dipped in lin-To clean gilded frames. Gently wipe

them with a fine cotton cloth dipped in sweet-oil. To clean plate-glass. A soft cloth wet in alcohol is excellent to clean French plate-

glass and mirrors.

To test nutmegs. Prick them with a pin, and if they are good the oil will in-stantly spread around the puncture. To remove blood-stains from cloth: Satrate with kerosene, and after standing a ittle while wash in warm water.

To remove coffee stains from linen. Lay the stained portion of the cloth over a bowl and pour boiling water through it. To cleanse a sponge. Rub a lemon thoroughly into a soured sponge, which then inse several times in lukewarm water. Clear boiling water will remove tea-stains;

pour the water through the stain, and thus revent its spreading over the fabric. Tansy is a sure preventive of moths. If the leaves are sprinkled freely about woolens and furs they will never be moth-

eaten. To remove peach-stains. Soak in milk for forty-eight hours if colored goods, or if on white cloth rub with lemon-juice and

To prevent icy windows. Windows may be kept free from ice and polished by rub-bing the glass with a sponge dipped in

To clean the silver spoons and forks in every-day use, rub them with a damp cloth dipped in baking-soda; polish with chamois-To soften kid shoes that have been har

dened by getting wet, clean them thoroughly and rub castor-oil into them before taking them off. To remove the odor of perspiration. Place about two tablespoonfuls of spirits of am-

monia in a basin of warm water, and apply to the affected part.

When a hat is wet with rain it should be dried with a handkerchief, brushed with

a soft brush, and when nearly dry with a harder brush until perfectly dry. To remove iron-rust from linen. muriatic acid, rubbing until stains disappear, then rinse thoroughly; use a little amnonia in first water to counteract acid. To remove grease. Moisten with ammo

nia-water, lay blotting-paper over and iron dry; if silk, use chloroform to restore color, or cover with powdered French chalk, and For cleaning jewelry. There is better than ammonia water. If dull or dirty, rub a little soap on a soft brush, and

brush them in this wash. Rinse in cold water, and polish with chamois-skin. The secret of standing and walking erect consists in keeping the chin away from the breast: this throws the head upward and backward, and the shoulders will naturally settle backward in their true po-Before putting away linen take care that

it is thoroughly dried and well aired. Nothing collects dampness quite so quickly as linen. Should it show any sign of turnng yellow, wring out in lukewarm soap and water, blue slightly, then dry and store again.

To keep moths out. Benzine will drive away moths from upholstered furniture. Sprinkle with benzine. It will not spot or stain the most delicate silk, and the pleasant odor soon passes away in the air Where it is known that the moth-miller has entered, burn a tablespoonful of gum cam phor in closets where the clothes hang .-Fanny Malin,

To Clean Jewelry. Old ornaments should be cleaned with spirits of wine, rubbed on dry, and then polished with a chamois leather. Silver ornaments are more difficult to cleanse, and they tarnish again much more easily. They should be boiled in soap and water for five minutes, and then put in a basin with the same hot soap and water, and scrubbed gently with a soft brush while hot. Rinse and dry them with a linen rag. Heat a piece of common unglazed earthenware, or a piece of brick, and put the ornaments on it so as to dry them thoroughly and cause every particle of moisture to evaporate. Unless this is done, any moisture remaining on the silver will cause it to be-All jewelry, whether gold or silver, but especially the latter, will look much brighter if kept in box-wood sawdust and covered from the air to prevent tarnishing; it also dries them better than anything else after being washed. Pearls are stones with complexions, and require special treatment. They should be washed carefully in warm soap and water, and exposed as much as possible to the sun and air to dry them, and also to preserve the bloom.-N. Y. Home

The All Important Hat.

A becoming hat or bonnet is always an interesting and important subject to a welldressed woman, for she knows however perfect may be the details of dress, wran gloves and all other necessary adjuncts of a woman's toilet it remains for the hat make or mar the final effects. The question of personality is of primary consideration in selecting hats or bonnets and wome are beginning to see that the only way to obtain this individuality is to design not fashion their own hats. If a real effort were made by each woman to secure artistic effects instead of such a frantic endeavor to get the latest fashion the world would be fuller of loveliness. The colors worn have more to do with the general appearance than most people imagine; some think it no matter what colors are worn so long as they are fashionable, but we should learn to select the colors most be coming to us and avoid the ones which ring out our defects. Dame fashion demands that we must have a new hat for every season, but we are not always ready nor able to meet these demands and thos who are ingenious enough to remodel or fashion their own hats are indeed forcolor and detail of arrangement. This end tunate. If one has this creative faculty she can have hats and bonnets suitable for all occasions. If she has not the money she would like and proceeds to evolve it reproduce it faithfully. Oh, don't thank me! I'll do it simply to save time and expense in designing. You shall have no excuse, in case you are awkward, of not 'feeling at home.'"

she would like and proceeds to evolve it out of an old hat and cast-off ribbons and laces. Some young girls who like to have money in their pocketbooks so they can take nice trips in the summer or gratify their love for beautiful things which they can not make themselves decided not to buy new spring hats but made their last su mer white hats take the place of a new They selected red and blue diamond dyes for cotton and colored the hats the desired shade together with a lot of ribbon for trimming. After the hats were taken from the dye and rinsed the crowns were pressed over a tin pail and the brims placed given a coat of thin varnish and they were ready for the trimming. The one who se-

lected the dark blue dye colored at the same time a faded tan cape the same shade of blue as the hat and she is now provided with a nice hat and cape which cost very little and they are most becoming and to attain this high art of dressing becom ingly, but it does require industry and vig-Hance. Hats should be brushed every day before laying aside to keep the dust from grinding in. Veils should be wound on a oller to keep them smooth and preven their curling at the edges. This roller may be made of a piece of window shade roller, covered with silk or velvet and ornamented to suit one's taste. A veil preserved in this manner will wear longer than one that s folded and put away in a case and will have the appearance of a new veil,-A. M. H.

Woman's Ways.

A woman wants to be truly loved-and to be told so. A woman's voice is the greatest evidence

of breeding, or the reverse. A woman who owns palms thinks they are as much trouble as a sickly baby.
Why is it we always feel so mad when we are told of faults that we know we

possess?

Following in the footsteps of duty leads to mental tranquillity-however great the

A word of praise for a dinner often mor than compensates a woman for all the

rouble of its preparation. No matter how sensible a woman may be, she is willing to stint herself on food to pay for anything recommended to make her beautiful.—Pittsburg Dispatch.

"Woman," says Professor Mantegazza, requires to be made better, and above all happier; not yet making her equal to us, for that would be to render her worse off and to increase her sorrows, but by giving her all the rights due to woman.'

"The Italian woman is not athletic," he declares, "nor is it desired that she shall become so in the future, but attention to healthful living will increase her height

and lengthen the duration of her beauty. "To-day," he says, "a Lombard country woman is old at thirty years, the Italian lady is beautiful even up to forty; the English woman, who is a whole century ahead of us, is beautiful up to fifty, and some times even to sixty. And so ought all the coming wonen to be.

"In the history of any nation that lacks the expression of a feminine mind we must find a big vacuum. In the epistolatory style, in romance, in drama, in poetry, woman may aspire to a great height.' It seems to Professor Mantegazza that voman may come to be successful as doctor, accountant or clerk, but the prac tice of jurisprudence ought to be denied her on account of her intellectual inferiority.

her timidity, her great impressionability her weak resistance against sympathies and antipathies.

Political life is also to be forbidden, he says, as it would simply result in putting the government into the hands of the clergy. She should have the right to control her own dowry; in family controversies a voice and authority the same as her hus band; the right of appeal before a family

council composed of an equal number of Professor Mantagazza adds that the com ing woman should be allowed to bear witness in civil matters at least. Italy, it appears, is behind Mahomet, who said: "W call two men as witnesses, and, failing one of these, two women chosen at our pleas ure. If one of the women deceived hereel through forgetfulness the other would be able to remind her of the truth." (Koran, Chap. II.)

Care of the Lamp.

duct a large, elaborately equipped country house was told by her employer that there were two services which she would wish not to have relegated to the servants' performance. These were the dusting of the drawing-room bric-a-brac and the care of put with it and strong heated sodium carthe house lamps. "If I am without a housekeeper," said the mistress, "I always formed by the mixture and this being attend to these two duties myself, and roasted in an oven with some charcoal be while you are with me I should like you to do so." This emphasizes the saying that it takes intelligence and a college education to keep lamps in satisfactory service. It is certainly true that the evening lamp, which should be a synonym of domestic good cheer, is a curse rather than a blessing if it persistently smokes. To have perfect light, the bowl of the lamp must he washed with hot water and soda, the burner in a strong solution of the same. and the wick soaked when new in vinegar If these matters are attended to in addiome cloudy or to assume a greenish hue. tion to the filling and trimming to an exact level, a light that will not smoke and which is clear and undimmed will be the invariable result.-New York Saturday Post.

Mow to Mend Your China.

Written for Green's Fruit Grower. If you once lose faith in mending your favorite pieces of china by having them come apart or break to pieces, it is hard to restore it, but an excellent cement can be made at home which will last, or I mean say will make your broken china last as long as a perfect piece. It's a simple process and is made by mixing plaster of Paris with strong gum arabic and you apply the paste with a brush, but before endeavoring to join the broken parts, it is well to cleanse the broken edges by dipping them in very hot water and then pro ceed to do the work in hand immediately. have used some very choice pieces that were mended this way and it's marvellous how long they will last. It takes the most careful handling and washing, and never let a servant or any one work it but yourself, if you wish to keep it safe and un-Too sudden change from cold to heat will break it. The best way to wash is fomed it is to have a basin prepared with a warm the carbonate, then the carbon combines suds of pearline and dip in and rinse care with the lime. It is more properly called fully and wipe with a soft towel while warm. The soap flavor clings to delicate china, hence this is better for mended pieces. Of course it is never much soiled. but gets dirty and needs attention.

Another cement is made by heating the whites of eggs to a froth and add grated cheese and quicklime after it has settled. further whipping, then apply it to the china. It will answer admirably, and will not break quickly, but will endure moisture and considerable heat. It is such a comfort to a housekeeper to save her pretty china, and accidents so often happen that deprive her of her cherished gifts, and to know of a safe remedy is a great pleasure. Hence I give you this, hoping you may be ssful in mending as I was.—Mrs. S. J. H., Ky.

\$ Clematis Plants Free.

We offer as a premium for each subscriber to GREEK'S FRUIT GROWER one fine plant by mail of Jackmanni Clematis. This is the most popular and free blooming of all varieties of clematis. Such expensive plants have not before been offered as premiums. Ask for this premium when you subscribe, or you will not get it.

FOR MIDDLE-AGED WOMEN.

Two Letters from Women Helped Through the "Change of Life" by Lydia E. Pink-ham's Vegetable Compound.

"DEAR MRS. PINKHAM :- When I first wrote to you I was in a very bad condition. I was passing through the change of life, and the doctors said I had bladder and liver trouble. I had suffered for nine years. Doctors failed to do me any good. Since I have taken Lydis E. Pinkham's Vegetable Compound, my health has improved very much. I will gladly recommend your medicine to others and am sure that it will prove as great a blessing to them as it has to me."-Mrs. Geo. H. June. 901 DeKalb Ave., Brooklyn, N. Y.

Relief Came Promptly "DEAR MRS. PINKHAM :-- I had been under treatment with the doctors for four years, and seemed to get no better, I thought I would try your medicine. My trouble was change of life, and I must say that I never had anything help me so much as Lydia E. Pinkham's Vegetable Compound. Relief came almost immediately. I have batter health now than I ever had. I feel like a new woman, perfectly strong. I give Lydia E. Nakham's Compound all the credit, and would not do without her medicine for anything. I have recommended it to several of my friends. There is no

water, Ill. Another Woman Helped "DEAR MRS. PINKHAM :-- I took Lydia E. Pinkham's Vegetable Compound during change of life and derived great benefit from its use."-MARY E. JAMES,

need of women suffering so much for

Mrs. Pinkham's remedies are a sure

cure." - MAHALA BUTLER, Bridge-

Soda.

136 Coydon St., Bradford, Pa.

"What, is cooking soda made from salt?" cried an old housekeeper who had used many a package. "Never heard of such a thing. I thought it was made from wood ashes." The old pioneers used to tell how they collected the half-melted lumps of 'notash" where a big log heap had burnt down and pulverized them for cooking purposes, but soda and saleratus (two names for the same thing) are mostly made from salt. Mostly, I say, for not so very many years ago the only way to get soda was to mow and dry and burn certain beach growing plants. Salsolas and salicomias, in localities true seaweeds were added; and carbonate of soda was leached from the ashes. The reason why the so-called Russian thistle (salsola tragus) has taken such a shine to some parts of the West is because of the alkaline soil. The Dakotans and others might set up soda plants if they liked, the only drawback being that the chemical treatment of salt is so much cheaper that they wouldn't make anything. It was a cold day for the old style soda men when the Frenchman, Le Blanc, first made it from salt, the shrinkage in value of seaside property upon the shores of Europe (no soda was ever made in this way in America so far as I know) was enormous. Still a little comes from Spain, Sicily, Madeira, etc., the people who make it working for almost nothing, I suppose.

Mix equal weights of sulphuric acid (oil of vitriol and salt) and heat the mixture. Chlorine gas rises like steam from hot water and if allowed to dissolve in cold water, which it is very ready to do, it forms spirits of salt (muriatic or hydrochloric A housekeeper recently engaged to con- acid), a substance having a thousand uses. What is left is a solid mass of sodium sulphate (Glauber's salt), the sulphur of the vitriol having combined with the sodium Glauber's salt is sometimes used in medicine. If powdered chalk and fine coal are bonate can be leached out of the hard cake comes the bicarbonate (two carbons) and is now ready for the grocer. This process is less in use of late, the Solvay method socalled from the name of the inventor being thought better. The figures of The Solvay Process Co., of Onondaga Co., N. Y., for 1895 are as follows: Land, 2,000 acres: men employed, 3,000; limestone, 1,200 tons daily; coal, 1,000 tons daily; brine, 850,000 gallons; output of soda ash, 350 tons daily. It would take many weed gatherers with their one little crop per year to keep up with this soda plant. The Solvay soda ash s carbonate and requires only another dose of carbon to become cooking soda (bicarbonate). But not all of it is used in this way, soap and glass and many other arts call for soda; perhaps only a small part of it goes to the kitchen. The Solvay process first pumps carbon dioxide (carbonic acid gas) out of the burning lime kilns and com-bines it with liquid ammonia forming carbonate of ammonia. Then mixed with the brine (the Solvay Co. bores its own wells there being 234 feet of rock salt in some of them), a double change is made, the carbon leaves the ammonia and forms carbonate of soda (sodium carbonate), while the ammonia combines with the chlorine of the salt becoming chloride of ammonia. The soda settles to the bottom, I believe; if not it is eparated somehow and lime and water (milk of lime) forms chloride of lime and he ammonia now pure again, goes back and is put in again over and over. if any of you can tell this company how to separate the lime and chlorine without more cost than it all comes to I understand they

would be very glad to hear it. Heat does not alter the simple carbonate. one portion of carbon leaves the bicarbonate soon enough but the other remains. So cooking soda does not turn to salsoda in the oven as so many imagine. Sal soda by adding quicklime to sodium hydrate or caustic soda and it would be lively stuff to have in one's stomach in any quantity. Some makers of package soda say on their pound papers that their soda turns to salt in the oven, thus merely salting your cookery; but this is not strictly

'Muriatic acid added to soda will turn it to salt in a hurry with an immense fizzle of carbonic acid gas, but nothing else will do it, though oil of vitriol, lemon juice, sour milk, cream of tartar or most anything will neutralize it when it is inert as so much clay or sawdust. Even an excess of carbonate is more unpleasant than dangerous. A lot of fool writers will tell you that soda and progressive suicide are about the same and progressive succeed are about the same thing and many good people have uneasy declings in consequence which are entirely needless. The carbonic acid is between you and harm. Luckily for some careless cooks, it is not the flesh dissolving hydrate they are using. Some turning up their noses at the grocer's "saleratus" go to the drug store for "soda." But there is no difference except that the druggist has it in a barrel, while the grocer deals in pound boxes.

For the land's sake use Bowker's Fer-

E. S. Gilbert, N. Y.

Mehitable Ann came and showed me some

short dresses she had been making for the

the township caucus, and the fire at Jones-

Well, I made up my mind then and there that I was thankful I wasn't John and

had to read a daily and two weeklies to

Hints to Housekeepers.

Baked peaches were recently served and

proved a rather unusual dish. The peach-

es were peeled and baked in a pan as apples are. A little sugar and water with

a syrup that was used to baste them with.

They were cooked tender and served cold,

with the syrup jellied around them.

dish, the value of which rests in the fact

that fruit which is not ripe enough to be

yard if desired, and it would make good

curtains hung straight over lace inner cur-

A bit of economy as well as an improve

croquettes or fried food is to be dipped

may be served with or without poached

If kerosene is rubbed with a flannel

cloth, on steel knives that have become

rusty, and they are put aside for a day or

two, the rust will be loosened and they

may be very easily cleaned.

A pretty brown ware with a high glaze

is now to be found at most of the house-

furnishing shops and departments. Little

individual baking dishes with handles are

especially attractive, and the morning egg

ashionable air. There are also oval cov-

and chafing dishes, too, are to be had. The

The Well-Dressed Woman.

A well-dressed woman is not necessarily

expensively dressed, and it is possible that

lothes may be both costly and well made

that she has in hand, or that their colors

are not well chosen, or that they are not

neatly and trimly put on. There is an im-

dainty in every tiny detail, and others say

that "so long as the general effect is good

little things don't matter," for it never oc-

curs to them that it is just the attention to

'little things" which makes good general

effect possible. The woman of refinement

is never loudly dressed, but she is always

absolutely dainty. She may be poor and

be no mistaking her. She will perhaps wear

a somewhat shabby serge costume, but it

will be well brushed, and instead of deck-

ing herself out with fluffy lace and ribbon

sum as she would have to give for a well-

made cotton shirtwaist and a simply

trimmed straw hat, she knows that the

rest of her clothes and her surroundings

generally, and that, being unsuitable, they

might be in themselves .- Philadelphia

Act as She Did in Private Life.

The daughter of a wealthy and modish

family desired to become an actress. She

was young, beautiful and ambitious. She

had several interviews with a dramatic

"You have the right personality for

small part in a piece I am going to bring out," he said. "It is that of a lady ac-

"My mother is 'at home' Thursday after-noons," the girl replied. "You will receive

her card. Will you devote an hour to ob-

The manager consented. He found that

she was, as he had expected her to be, a

graceful, gracious belle among the modish

guests. He told her that if she would try

to preserve the same manner at the recep-

tion in the play he would take the risk of

"And now I have something to ask of

you," she said. "It would not be hard for

me, I think, to behave exactly as I do here;

only, would I feel the same in the kind of

drawing-room you would place me in? You comprehend?"

"Yes," the manager replied. "You mean

that you would miss the beauty and lux-

ury of this apartment. Everything here is

in taste, even to the smallest touch of color and detail of arrangement. This end

of the room is just what I want for the

scene in the play. If your mother will give me the facilities for my artists I will

reproduce it faithfully. Oh, don't thank

me! I'll do it simply to save time and expense in designing. You shall have no

excuse, in case you are awkward, of not 'feeling at home.'"

drawing-room in the play duplicated a section of the one in Fifth avenue; and was

not less costly so far as it went. And the

girl? Well, the open end of the room was toward a public audience, and that scared

away her fine air. She was absolutely

until after a week's experience that she was able to speak her dozen lines like an

awkward on the first night, and it was no

The manager kept his promise.

customed to the most refined society.'

manager.

serving me there?"

engaging her.

vould look vulgar, however pretty they

mense deal in the way peo

beneath covered in green corduroy.

and offered with tartar sauce.

hold my own in politics.

this way.

sects.

from the effects.

ait in one year. I do on my currants, but gh cultivation. As you dy loam. I have sold bushes this season at even cents per pound." is picked what will bushes for another

DEENS FRUIT GROWED

the Paper

for the Family

OMEN'S DEPARTMENT

"The hand that rocks the cradie

Don't Min' Tellin' Yew."

ten for Green's Fruit Grower by N. Trussell.

ever, never shud accurd; out twenty 'n' she sixteen! on't folks wed afore they's wean?

dist critter 'n seven zones, er merry Parson Brown, list man threwout ther taown; cross, swarin' Jonnie Dean,

me meddlin' mongst my nabus, er dew 'ith my own laduz.

min' a tellin' yew,
Snaggs, as is most threw,
1' bo't th' Perry Farm!
elye hundrud, clear an' calm,
r hundrud inter det,
Hobbs who'll hev it yet,
ash thet's paid upon't,
or Miss Snaggs tew want.

clean a' most forgot, ell 'n' leave th' spot: Il took ter chawin' barker

ood gall as e'er wuz seen, in, tew, Jemima Bean,— gustid? It is mean!

ock and forty-five, ome, as I'm alive!

smok jet like any tartar.
w Tomy' capable 'n' smart,
soone'll & dull as er cart.
r's rt Johnjacob's gall, I hearn,
gonerway,her keep ter earn.—

ONLY IWOM N'S THOUGHTS

A Useful Oblong.

ritten forGreen's Fruit Grower by our

We all the we know what eggs are for,

out not one oten can tell how useful they

an be, aside tom eating. Many a woman

dds to her sall income by the egg money,

palm, the white f an egg applied, removes

art mill and with a little sugar are gen-

ally likd by cildren. A raw egg in the

ffee evry moning makes it as clear as

old wine and is a very good tonic, espe-ially forconvale cents. The white of an

egg, beam with oaf sugar, and with a

lew drop of lemon juice added is very

ool for oarseness and certainly is very

sant o take. Yany public speakers

singer take this in preference to the

trables. If a bt of paste is wanted

fasten a photograph on a card, or to

a paper over a glass of jelly, here is

hite of a raw egg, better than muci-

An ngenious workan can make in-ing things with the shells after the

are blown out, by making a hole

end, and then bliwing with the

ough the egg. They can be dyed

hells colored very prettily or small

pasted on and given to the chil-

little basket. One mother made

girl very happy by preparing a

ed with colored eggs at Easter

letting her give them to all the

Very funny faces can be drawn

ls. In fact an inventive faculty

any interesting ways of decora-

d qualities, in our beautiful ob-

anything by planning," said a

housewife to me, and a wise

is a most invaluable gift. To

s naturally, but if deficient it

effort to attain. The clean-

pon us, a hard, disagreeable

est, but very much can be

above all, moderation. One

and "done with it." A few

to make it easier by careful consid-

my neighbors was determined to "get

I'm days the first of March saw all the

part of the house pulled up and gal-

of soap and water poured over walls floors to erybody's discomfort. The

er changed. Her girl took a severe

and feve followed and of course

the doctr and weeks of sorrowful

ng with a orn-up house besides. An-

neighboris not deceived by a few

ant days i March but she begins her

cleaning by pulling apart, and set-

proceeds,one room at a time. This

things, but what a difference it makes

aght car be carried into so many

little used chamber, and

g to rights,

THE WOMAN WHO PLANS.

n ought

on the grocer's bill if her

eggs enough to add to the

A mother with young chilrep a dozen at least on

it sticks in the throat, a

ill dislodge it. It lit-

as some children seem

roars with her smarting

They are good for

If Jimmy swallows

regular rrespondent. Sister Gracious.

ood gracus! Sue as I wus born, y man's tootin supper-horn!

number one, as trubbles me,, mber tew yi soon shell see.

Nancy Harner Sally Jones,

rinder's goin' tew git er wife!—
naow, I don't mean thet, jest quite,
he an' merried Peter White.
I seek things is jest absurd

rules the world."

hear, in all yer life?

much of anything, but iltivation. As you see thy condition but have able growth since we careful to prevent an cannot produce wood ame time. Many men re under the impression a large growth of wood This has not been my need is to keep the old althy condition, and my produce annually large

re our currant bushes is thinning the bearing much fruit will not bearing branches are een's Fruit Grower.

Co.,-There are two this vicinity-one, the E. Smith & Sons, said ast of the Rocky moun-the Quince orchard of Brothers, said to be United States. The 00 acres in peach trees this year introduce a , the Lamont, of high cimens weighing 17 z 10 to 12 inches in cirit 500 bushels of the own this season. It is o sell any trees of this

1900. Please e have decided by mail, post-

ne letter claim ter, since it is



v Grape.

k grapes. A wonder ahead of any grape. ge bunches and fine well-rooted vines of each subscriber who year and claim this



s to-day the largest, aspherry in existence. ill be given each sub-

oks as premium to all

who claim the preare as follows: irowing.

ustrated, 130 pages, e, Currant and Small another column.

Pear, Plum, Cherry, rant, Gooseberry and in another column.

ping. ared with great care, oultry Keeping. See books.

changel n varieties of

have thanked my mother once I have a dozen times that she taught me to use a needle." It is no easy work to run a house hold wisely and well, and no one needs to

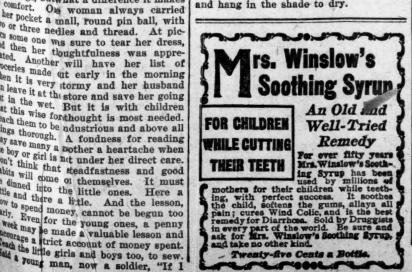
every corner, instead of a drug store, with big glass bottles, a most inviting array of fruit. The proprietor will not boast that in six months he has sold five undred thousand two-grain quinine pills, but that his customers brought apples by the bushel, and his sale of fruit of all kinds doubled every year. Neither will the women spend hours daily rolling out pie crust and putting the luscious fruit between two pastry crusts. Neither will they have to read with shame that in the United States alone eight hundred and nineteen million pies were made every year at a cost of one hundred and sixtyfour million dollars. Think of the luscious fruit that vast sum could produce and the bounding health if it was eaten by the nervous, siling American women. First come apples, fortunately in America, plentiful and cheap. No need to drown the pleasant flavor in cinnamon and nutmeg. but served at every meal in a pretty dish the family will soon eat them, and not sigh for pie. Let the children have access to the barrel, and they will not be troubled with throat diseases or bowel complaints We often stop eating fruit in winter because it is expensive, and eat pork and fat meats; then come hard colds and a general debility towards spring, with a doctor and a medicine bill, as a mournful accompaniment; whereas, more fruit would keep the system clear, eyes bright, and instead of good money going for nasty drugs, we would have a snug little sum in the bank. There was a time when oranges were considered a luxury for the rich. In my fath er's household there were a half dozen children, and he would bring home two or three oranges, carefully dividing them among us, we were thankful for a small among us; we were thankful for a small saw a banana until I was grown up. Now they are very plentiful, but ought to be cheaper, as easily attainable, and sold as reasonably as a glass of beer. Dates, too, are very wholesome in counteracting a

A LITTLE FORETHOUGHT. The first wish of us women is to be well and to be equal to our duties from day to day. This delightful condition is not brought about by taking whole bottles of patent medicines, or visits from the doctor, but by careful consideration and wise forethought. Here are some simple rules that are suggested by my own experience. Let the patent medicine advertisements severely alone. Scarcely a day passes but a eaflet or almanac is left at the door. Full of symptoms of all kinds of diseases one cannot read them without going over in her mind, this or that bad feeling, and deciding that a bottle of this "cure all" must be bought and that is exactly what the druggist or maker of the stuff wants to have you do. One afternoon, after a busy morning, I picked up a leaflet on the front steps and read it. It treated of heart disease and all the symptoms were described at length. It seemed as if I had been through most of them and many sleepless hours that night followed. My good old doctor told me, when I went to a "cure all" we have in the faucet over the kitchen sink, or in a good well of water. A bowl of hot water sipped slowly will relieve indigestion or a cold, often quiet a restless baby and send us off into a quiet sleep. Right over our heads shines the life giving sun and most of us shut out the healing rays for fear the carpets or wall paper will fade, and worse than all, we keep ourselves in the house where an hour a day at least, spent in the garden or even on the sidewalk if we have no garden, would make us healthy. Now one rule more, the most important of all. Have a firm belief in the good Father above that He will care for us. Not only in the important things but in all the little worries that come to all of us every day.

Flower Loving Women.

Editor Green's Fruit Grower: Permit me, through your columns, to speak to the flower-loving women of your great family circle. We have learned by ven't begun to finish the list of sad experience to be very suspicious in reenough has been suggested to gard to the glowing accounts of novelties ankful to Biddy, and to take catalogued each year, but I must say no catalogued each year, but I must say no catalogue yet has praised too highly the Rudbeckia or Golden Glow, as it is someimes called. Give it a rather moist situation, good soil, slight shade, perhaps, in the hottest part of the day, and you will be rewarded with a magnificent plant or clump great golden yellow, double flowers, lasting for weeks and furthermore it is perfectly hardy. It is grand for church decoration, either alone or combined with Hydrangea Grandiflora, which blooms at the same time. It increases rapidly and operations or not. should be divided at least every second year. Try it, my flower-loving sisters .-Mrs. E: H., Ct.

To clean a white straw hat. Take all the ribbon off the hat, and brush it well. Then cut a lemon in half, and rub the hat well all over; use the second half of the emon to finish off. When all dirt is removed, place on a table in the shade to dry, To wash delicate ginghams without fading add a tablespoonful of turpentine to a gallon of lukewarm water, and soak the garment in this for an hour; afterward vash clean in warm suds. Do not let lie, but rinse it quickly through several waters, and hang in the shade to dry.



A Plea for the Birds of 1900.

Written for Green's Fruit Grower by A. C hold wisely and well, and no one needs to pray more earnestly than a wife and mother for a "right judgment in all things."

A PLEASANT MEDICINE.

The time may come that we shall see on every corner instead of a drug store with

So amateurs of fashion plates
Just listen to our plea,
To save the lovely birds this year
That nest in bush and tree.
First, then, please spare the Oriole,
And plucky Chickadee;
Methinks they have prepared a glee
To sing to you and me.
Slay not the trilling Bobolink,
Nor Meadow lark to-day,
But let them oft with Rob. Redbreast
Rehearse their roundelay.

The gorgeous tinted Humming Bird,
That flits among the flowers,
O harm it not, 'twould be a sin
To blight its gladsome hours.
The Whip-poor-will, the Grossbeak.
The Martin and the Swallow,
Have such important trusts to keep
On each recurring morrow.
Dear canary birds that vocalize
Praise hymnals for the spring Praise hymnals for the spring, O, who would silence their sweet notes For any meaner thing?

Is it not strange in this ripe age
Of mighty independence,
We borrow from the Sachem Sage
A fashion for descendants?
Oh! Beauty's tints will fade away
And dainty plumes will, perish,
And "pretty is that pretty does"
This motto, let us cherish. Our plea transcends mere song of birds, While foes that vex the farmers, In millions, billions, countless hordes The beetle and the borer.

The caterpillar which may turn

And be a fatal tree explorer.

So let the birdlings live this year

That when fair autumn greets us

We'll find no subways in our fruit

No railroad tracks to cheat us.

N. B.—Over one million five hundred thou sand birds were sacrificed in Venezuela S. A., last year for fashion's sake.

English Sparrows and Other Birds.

Written for Green's Fruit Grower by E. S. Gilbert, N. Y.

Miss (or Mrs.) Mell Mintern, in her interesting letter in March Fruit Grower, heavy winter diet. Let us women, the year, stop making pies, and have fruit on the table every meal. We will find, instead the farmers here in Western New York are not doing any combatting, they are pernot doing any combatting, they are perdestroyed half a dozen nests of young ones in my time but I doubt if any of my neighbors have done even this much. It seems to me that the sparrows do not increase very much of late years. Miss Mintern thinks they are bad for the wrens in her section, but with me the wrens were gone before the sparrows were numerous enough to cut any figure. The blue bird has seemed almost extinct; I saw only one or two per year for several years. But last spring they were quite numerous again, so I have some hopes. The king bird is about done, I only saw one bobolink last summer, the crown thrasher has been gone for ten or more years, and the larger woodpeckers are greatly diminished. Hawks and owls are much scarcer than formerly and so on.

Now what is the reason for these things and what are we going to do about it? agree with Miss Mintern that it is unfair to charge it to feminine failings. I don't like to see birds on hats and if I had my way every sportsman's gun in the land would hang fire for four hundred years to come, but these things are not all the reasons for the passing of the birds. They him in great distress, that my heart was say that earlier haying uses up the bobo-as sound as a nut. Again, skip all the ac-link, the fields being cut before the young counts of murders, hangings and direful are out of the nest. And blue birds, wrens, accidents from the papers; they are not crown thrashers and woodpeckers, besides good things to go to bed on, and especially many others are wildwood birds who have keep them out of the talk at meal time. Pleasant conversation at table promotes cuts the dead and dving trees in his wood good digestion, and at the breakfast table lot for fuel and soon there are only green particularly. To start the family off for and growing trees; the woodpecker sees the work of the day in pleasant mood is nothing worth while there and goes on. Or half the battle. We little appreciate what you ditch a marsh and think you have done wonders, but the redwinged blackbirds wish you hadn't done it. And so on through the list with many and various details. If we really want to reinstate the birds we had better leave the country our selves and let it be reforested again; this would certainly benefit many species. It ought not to surprise us that birds adapted to forest life do not like cabbage fields and yet if they do not it is laid to the women. Some people are perfectly happy only when writing against female shortcomings. If the law should decree that every lady must wear seven sparrows on her hat or go to prison do you think it would exterminate the sparrow? It would not nor anything like it. In spite of all our kicking and cursing the sparrow has conquered us with all ease because he finds favorable conditions, while our woodland species do not Let the land be again covered with forest and the sparrow would be the one to dimnish. Let Miss Mintern make the doors to her wren boxes just large enough to admit the wren, then the sparrow cannot enter and there will be no more trouble. Miss M., she says, has the horrors when she thinks of birds becoming extinct. So do I. but there is another way of looking at this She and I will cease to worry about such things one of these days and our children will not miss what they never knew. When I was young wild pigeons were apt to come in vast multitudes and though I never shot any nor wished to do so, it was glorious to eight feet high, loaded with hundreds of watch the swarming flocks and listen to the roar of their wings. They are all gone now, greatly to my regret, but I notice that my children who never saw a pigeon are not worrying in the least. The great law of change goes right on whether we like its

Aunt Jane on Newspapers.

Written for Green's Fruit Grower by Kate E. Schluffarth.

I usually am a quiet body; I stay at home and do my own housework, and don't find time to do much more outside work than just to run down to Mehitable Ann's once or twice a month. I don't even find time to read the papers. John, he takes a daily and two weeklies and reads parts often twice. I don't see how in the world he does it. But, as I started to say, I usually am a quiet body and don't get excited easy. But the other day when I was down to Mehitable Ann's I did get dreadfully upset. You see it was this way: Mehitable Ann had to go upstairs and coax the baby to take his nap (she has an awful nice baby, so smart for his age, he's only five months old). Well, as she was so busy I at down and as I didn't have any work I acked up her paper and thought I

ead. The first thing I see was "Pitched Battle in Hayseedville," in big letters. "Why," thought I, "that's my own town; queer John didn't tell me about it before; but I guess he was too busy with the election." Right in the next column in big letters, too, was "Big Blaze in Jonesville." Jonesville is only five miles off, so I read that, and, would you believe it! I found that the town was in ashes and lots of people homeless. And right below that was a little place that said that Jed Thomas was killed by a runaway horse. Jed and I used to keep company, so I felt dreadful bad. I begun to have feelings down my back when in private life.—Ladies' Home Journal. Things Worth Remembering.

baby. But I didn't have a bit good visit, To stop bleeding. A handful of flour and when I got home and was getting supbound on the cut.

A red-hot iron will soften old putty so per my mind was that full of the poor, suffering people of Jonesville, and Jed's poor that it can be easily removed.

A sun-bath is of more value to health wife and ten children, that I put the coffee in the teakettle and sweetened the bis-

than much warming by the fire.

To cure a sting of bee or wasp. Mix cuits, and when John came home and I told him all about it, he just laughed and common earth with water, and apply at said. "The battle was only loud talking of To prevent doors from squeaking. ville was Josh Edward's barn, and Jed the hinges with a feature dipped in lin-Thomas is electioneering just as hard as

> To clean gilded frames. Gently wipe them with a fine cotton cloth dipped in

To clean plate-glass. A soft cloth wet in alcohol is excellent to clean French plateglass and mirrors. To test nutmegs. Prick them with

pin, and if they are good the oil will instantly spread around the puncture. To remove blood-stains from cloth: Saturate with kerosene, and after standing a ittle while wash in warm water. a small piece of butter were added, making To remove coffee stains from linen. Lay the stained portion of the cloth over a bowl,

To cleanse a sponge. Rub a lemon thor-Whipped cream was sent around with the oughly into a soured sponge, which then Clear boiling water will remove tea-stains; offered in its natural state may be used in pour the water through the stain, and thus revent its spreading over the fabric.

and pour boiling water through it.

An old method to get rid of cockroaches Tansy is a sure preventive of moths. If the leaves are sprinkled freely about woolens and furs they will never be mothis both simple and efficient. This is by the use of the common red wafers that may be had at any stationer's, and which are, it eaten. seems, a food much esteemed by the in-To remove peach-stains. Soak in milk They eat them greedily and die for forty-eight hours if colored goods, or

if on white cloth rub with lemon-juice and A new treatment of Agara linen consists in having it embroidered in coarse silks of To prevent icy windows. Windows may different colors with Indian beads strung be kept free from ice and polished by rubbetween the stitches. A large table square in dull olive green is worked in the way I bing the glass with a sponge dipped in

alcohol. have mentioned. It may be bought for To clean the silver spoons and forks in every-day use, rub them with a damp cloth \$4.50. This work may also be had by the dipped in baking-soda; polish with chamois-

skin. tains, ending at the window sill with seats To soften kid shoes that have been hardened by getting wet, clean them thoroughly and rub castor-oil into them before

ment in the service of the egg in which taking them off. To remove the odor of perspiration. Place before being rolled in bread crumbs is to about two tablespoonfuls of spirits of ammonia in a basin of warm water, and apply add to it a teacup of boiling water. Use the whole egg and beat lightly to break it to the affected part.

up before pouring in the water.

The despised codfish ball is quite trans-When a hat is wet with rain it should be dried with a handkerchief, brushed with formed if it is moulded in croquette shape a soft brush, and when nearly dry with a harder brush until perfectly dry. Broiled dried beef will pleasantly re-To remove iron-rust from linen. lieve the monotony of breakfast bacon. It

muriatic acid, rubbing until stains disappear, then rinse thoroughly; use a little am monia in first water to counteract acid. To remove grease. Moisten with ammonia-water, lay blotting-paper over and iron dry: if silk, use chloroform to restore color. or cover with powdered French chalk, and

For cleaning jewelry. There is nothing better than ammonia water. If dull or dirty, rub a little soap on a soft brush, and brush them in this wash. Rinse in cold water, and polish with chamois-skin.

erved in one of them takes on quite a The secret of standing and walking erect consists in keeping the chin away ered dishes for baked beans and various from the breast: this throws the head upescallops. Little pitchers, oatmeal bowls ward and backward, and the shoulders will naturally settle backward in their true poware is extremely durable, as well as

Before putting away linen take care that it is thoroughly dried and well aired. Nothing collects dampness quite so quickly as linen. Should it show any sign of turning yellow, wring out in lukewarm soap and water, blue slightly, then dry and store

To keep moths out. Benzine will drive away moths from upholstered furniture. Sprinkle with benzine. It will not spot or and yet the general appearance of the wearer anything but desirable. The reason, then, will probably be that her clothes are not suitable for the work or the pleasure stain the most delicate silk, and the unpleasant odor soon passes away in the air. Where it is known that the moth-miller has entered, burn a tablespoonful of gum camphor in closets where the clothes hang .-Fanny Malin, in Woman's Home Comclothes; some people are always neat and

To Clean Jewelry. Old ornaments should be cleaned with spirits of wine, rubbed on dry, and then polished with a chamois leather. Silver ornaments are more difficult to cleanse, and have to earn her living, but still there will they tarnish again much more easily. They should be boiled in soap and water for five minutes, and then put in a basin with the same hot soap and water, and scrubbed gently with a soft brush while hot. Rinse neck arrangements, which soon crush and and dry them with a linen rag. Heat a soil, you will notice that she favors linen piece of common unglazed earthenware, or collars and cuffs and a neat tie. She is a piece of brick, and put the ornaments never guilty of overdressing, a fault more on it so as to dry them thoroughly and common with the average than with the wealthy woman, for though "the sweetest orate. Unless this is done, any moisture louse in the world-all tucked silk and remaining on the silver will cause it to belace," and "a darling little rose toque" are to be had in sale time for about the same come cloudy or to assume a greenish hue. All jewelry, whether gold or silver, but especially the latter, will look much brighter if kept in box-wood sawdust and covered from the air to prevent tarnishing; it also former would be out of keeping with the dries them better than anything else after being washed. Pearls are stones with complexions, and require special treatment. They should be washed carefully in warm soap and water, and exposed as much as possible to the sun and air to dry them, and also to preserve the bloom.-N. Y. Home Society Girl on Stage-Could not | Life.

The All Important Hat.

A becoming hat or bonnet is always an interesting and important subject to a welldressed woman, for she knows however perfect may be the details of dress, wrap, gloves and all other necessary adjuncts of a woman's toilet it remains for the hat to make or mar the final effects. The question of personality is of primary considera tion in selecting hats or bonnets and women are beginning to see that the only way to obtain this individuality is to design not fashion their own hats. If a real effort were made by each woman to secure artistic effects instead of such a frantic en deavor to get the latest fashion the world would be fuller of loveliness. The colors worn have more to do with the general appearance than most people imagine; some think it no matter what colors are worn so long as they are fashionable, but we should learn to select the colors most be coming to us and avoid the ones which bring out our defects. Dame fashion demands that we must have a new hat for every season, but we are not always ready nor able to meet these demands and those who are ingenious enough to remodel or fashion their own hats are indeed fortunate. If one has this creative faculty she can have hats and bonnets suitable for all occasions. If she has not the money to purchase a new hat she decides she would like and proceeds to evolve it out of an old hat and cast-off ribbons and laces. Some young girls who like to have money in their pocketbooks so they can take nice trips in the summer or gratify their love for beautiful things which they can not make themselves decided not to buy new spring hats but made their last sum-mer white hats take the place of a new They selected red and blue diamo dyes for cotton and colored the hats the desired shade together with a lot of ribbon for trimming. After the hats were taken from the dye and rinsed the crowns were pressed over a tin pail and the brims placed

flat on the table to iron. They were then

given a coat of thin varnish and they were

lected the dark blue dye colored at the same time a faded tan cane the same shade of blue as the hat and she is now provided with a nice hat and cape which cost very little and they are most becoming and stylish. It does not require so much money to attain this high art of dressing becom ingly, but it does require industry and vig-ilance. Hats should be brushed every day before laying aside to keep the dust from grinding in. Veils should be wound on a roller to keep them smooth and prevent their curling at the edges. This roller may be made of a piece of window shade roller, covered with silk or velvet and ornamented to suit one's taste. A veil preserved in

Woman's Ways.

this manner will wear longer than one that is folded and put away in a case and will

have the appearance of a new veil .-

A woman wants to be truly loved-and A woman's voice is the greatest evidence

of breeding, or the reverse. A woman who owns palms thinks the are as much trouble as a sickly baby. Why is it we always feel so mad when we are told of faults that we know we

Following in the footsteps of duty leads to mental tranquillity-however great the

A word of praise for a dinner often more than compensates a woman for all the trouble of its preparation.

No matter how sensible a woman may be, she is willing to stint herself on food to pay for anything recommended to make her beautiful.-Pittsburg Dispatch.

"Woman," Pays Professor Mantegazza requires to be made better, and above all happier; not yet making her equal to us for that would be to render her worse off and to increase her sorrows, but by giving her all the rights due to woman.'

"The Italian woman is not athletic," he declares, "nor is it desired that she shall become so in the future, but attention to healthful living will increase her height and lengthen the duration of her beauty.

"To-day," he says, "a Lombard country voman is old at thirty years, the Italian lady is beautiful even up to forty; the Eng lish woman, who is a whole century ahead of us, is beautiful up to fifty, and some times even to sixty. And so ought all the

coming women to be. "In the history of any nation that lacks the expression of a feminine mind we must find a big vacuum. In the epistolatory style, in romance, in drama, in poetry, woman may aspire to a great height." It seems to Professor Mantegazza that woman may come to be successful as a

doctor, accountant or clerk, but the practice of jurisorudence ought to be denied her on account of her intellectual inferiority, her timidity, her great impressionability. her weak resistance against sympathies and antipathies. Political life is also to be forbidden, he

says, as it would simply result in putting the government into the hands of the clergy. She should have the right to control her own dowry; in family controversies a voice and authority the same as her husband: the right of appeal before a family council composed of an equal number of men and women.

Professor Mantegazza adds that the com ing woman should be allowed to bear witness in civil matters at least. Italy, it appears, is behind Mahomet, who said: "We call two men as witnesses, and, failing one of these, two women chosen at our pleasure. If one of the women deceived herself through forgetfulness the other would be able to remind her of the truth." (Koran, Chap. II.)

Care of the Lamp.

duct a large, elaborately equipped country house was told by her employer that there were two services which she would wish not to have relegated to the servants' performance. These were the dusting of the drawing-room bric-a-brac and the care of put with it and strong heated sodium carthe house lamps. "If I am without a bonate can be leached out of the hard cake housekeeper," said the mistress, "I always attend to these two duties myself, and while you are with me I should like you to do so." This emphasizes the saying that it takes intelligence and a college education to keep lamps in satisfactory service. It is certainly true that the evening lamp, which should be a synonym of domestic good cheer, is a curse rather than a blessing if it persistently smokes. To have a perfect light, the bowl of the lamp must washed with hot water and soda, the burner in a strong solution of the same, and the wick soaked when new in vinegar. If these matters are attended to in addition to the filling and trimming to an exact level, a light that will not smoke and which is clear and undimmed will be the invariable result.-New York Saturday

Mow to Mend Your China.

Written for Green's Fruit Grower. If you once lose faith in mending your favorite pieces of china by having come apart or break to pieces, it is hard to restore it, but an excellent cement can be made at home which will last, or I mean to say will make your broken china last as long as a perfect piece. It's a simple process and is made by mixing plaster of Paris with strong gum arabic and you apply the paste with a brush, but before enleavoring to join the broken parts, it is well to cleanse the broken edges by dipping them in very hot water and then proceed to do the work in hand immediately. I have used some very choice pieces that were mended this way and it's marvellous how long they will last. It takes the most careful handling and washing, and never let a servant or any one work it but your self, if you wish to keep it safe and un-Too sudden change from cold to harmed heat will break it. The best way to wash is fomed by adding quicklime to it is to have a basin prepared with a warm suds of pearline and dip in and rinse care with the lime. It is more properly called fully and wipe with a soft towel while warm. The soap flavor clings to delicate china, hence this is better for mended jeces. Of course it is never much soiled. out gets dirty and needs attention. Another cement is made by heating the

whites of eggs to a froth and add grated cheese and quicklime after it has settled. A further whipping, then apply it to the china. It will answer admirably, and will not break quickly, but will endure moisture and considerable heat. It is such a comfort to a housekeeper to save her pretty china, and accidents se often happen that deprive her of her cherished gifts, and to know of a safe remedy is a great pleasure. Hence I give you this, hoping you may be as successful in mending as I was.-Mrs. S. J. H., Ky.

****** Clematis Plants Free.

We offer as a premium for each subscriber to Green's Fruit Grower one fine plant by mail of Jackmanni Clematis. This is the most popular and free blooming of all varieties of clematis. Such expensive plants have not before been offered as premiums. Ask for this premium when you subscribe, or you will not get it.

FOR MIDDLE-AGED WOMEN.

Two Letters from Women Helped The the "Change of Life" by Lydia E. Pinkham's Vegetable Compound.

"DEAR MRS. PINKHAM :- When I first wrote to you I was in a very bad condition. I was passing through the change of life, and the doctors said I had bladder and liver trouble. I had suffered for nine years. Doctors failed to do me any good. Since I have taken Lydia E. Pinkham's Vegetable Compound, my health has improved very much. I will gladly recommend your medicine to others and am sure that it will prove as great a blessing to them as it has to me."—Mrs. Geo. H. June, 901 DeKalb Ave., Brooklyn, N. Y.

Relief Came Promptly "DEAR MRS. PINKHAM :-- I had been under treatment with the doctors for four years, and seemed to get no better, I thought I would try your medicine. My trouble was change of life, and I must say that I never had anything help me so much as Lydia E. Pinkham's Vegetable Compound. Relief came almost immediately. I have better health now than I ever had. I feel like a new woman, perfectly strong. I give Lydia E. Ninkham's Compound all the credit, and would not do without her medicine for anything. I have recommended it to several of my friends. There is no

water, Ill. Another Woman Helped "DEAR MRS. PINKHAM :- I took Lydia E. Pinkham's Vegetable Compound during change of life and derived great

benefit from its use."-MARY E. JAMES,

136 Coydon St., Bradford, Pa.

need of women suffering so much for

Mrs. Pinkham's remedies are a sure

cure." - MAHALA BUTLER, Bridge-

Soda.

"What, is cooking soda made from salt?" cried an old housekeeper who had used many a package. "Never heard of such a thing. I thought it was made from wood ashes." The old pioneers used to tell how they collected the half-melted lumps of "potash" where a big log heap had burnt down and pulverized them for cooking purposes, but soda and saleratus (two names for the same thing) are mostly made from salt. Mostly, I say, for not so very many years ago the only way to get soda was to mow and dry and burn certain beach growing plants. Salsolas and salicomias, in some localities true seaweeds were added; and carbonate of soda was leached from the ishes. The reason why the so-called Russian thistle (salsola tragus) has taken such a shine to some parts of the West is because of the alkaline soil. The Dakotans and others might set up soda plants if they liked, the only drawback being that the chemical treatment of salt is so much cheaper that they wouldn't make anything. It was a cold day for the old style soda men when the Frenchman, Le Blanc, first made it from salt, the shrinkage in value of seaside property upon the shores of Europe (no soda was ever made in this way in America so far as I know) was enormous. Still a little comes from Spain, Sicily, Madeira, etc., the people who make it working for almost nothing, I suppose. Mix equal weights of sulphuric acid (oil

of vitriol and salt) and heat the mixture.

Chlorine gas rises like steam from hot

water and if allowed to dissolve in cold

water, which it is very ready to do, it forms spirits of salt (muriatic or hydrochloric substance having a thousand uses What is left is a solid mass of sodium sul phate (Glauber's salt), the sulphur of the vitriol having combined with the sodium. Glauber's salt is sometimes used in medicine. If powdered chalk and fine coal are formed by the mixture and this being roasted in an oven with some charcoal becomes the bicarbonate (two carbons) and is now ready for the grocer. This process is less in use of late, the Solvay method socalled from the name of the inventor being thought better. The figures of The Solvay Process Co., of Onondaga Co., N. Y., for 1895 are as follows: Land, 2,000 acres; men employed, 3,000; limestone, 1,200 tons daily; coal, 1,000 tons daily; brine, 850,000 gallons; output of soda ash, 350 tons daily. It would take many weed gatherers with their one little crop per year to keep up with this soda plant. The Solvay soda ash is carbonate and requires only another dose of carbon to become cooking soda (bicarbonate). But not all of it is used in this way, soap and glass and many other arts call for soda; perhaps only a small part of t goes to the kitchen. The Solvay process first pumps carbon dioxide (carbonic acid gas) out of the burning lime kilns and combines it with liquid ammonia forming carbonate of ammonia. Then mixed with the brine (the Solvay Co. bores its own wells, there being 234 feet of rock salt in some of them), a double change is made, the carbon leaves the ammonia and forms carbonate of soda (sodium carbonate), while the ammonia combines with the chlorine of the salt becoming chloride of ammonia. The soda ettles to the bottom, I believe; if not it is separated somehow and lime and water (milk of lime) forms chloride of lime and the ammonia now pure again, goes back and is put in again over and over. Now, if any of you can tell this company how to separate the lime and chlorine without more cost than it all comes to I understand they would be very glad to hear it.

Heat does not alter the simple carbonate, one portion of carbon leaves the bicarbonate soon enough but the other remains. So cooking soda does not turn to salsoda in the oven as so many imagine. Sal soda sodium hydrate or caustic soda and it would be lively stuff to have in one's stomach in any quantity. Some makers of package soda say on their pound papers that their soda turns to salt in the oven, thus merely salting your cookery; but this is not strictly

'Muriatic acid added to soda will turn it to salt in a hurry with an immense fizzle of carbonic acid gas, but nothing else will do it, though oil of vitriol, lemon juice, sour milk, cream of tartar or most anything will neutralize it when it is inert as so much clay or sawdust. Even an excess of carbonate is more unpleasant than dangerous. A lot of fool writers will tell you that soda and progressive suicide are about the same thing and many good people have uneasy feelings in consequence which are entirely needless. The carbonic acid is between you and harm. Luckily for some careless cooks, it is not the flesh dissolving hydrate they are using. Some turning up their noses at the grocer's "saleratus" go to the drug store for "soda." But there is no difference except that the druggist has it in a barrel, while the grocer deals in pound boxes.— E. S. Gilbert, N. Y.

For the land's sake use Bowker's Fer-♦ ♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦ tilizers. They enrich the earth,

BEHARDUP \$5.00 A DAY FOR ALL We Teach You Free. Profits Immense. New Process. Easily and Quickly Learned. No Experience Necessary.

A DAY at home or traveling, takcal, complete, scientific outfits for doing the finest of plating on Watches, Jewelry, Knives, Forks, Speens, Castors, Tableware of all kinds, Bicycles, Sewing Machines, Swords, Revolvers, Harness and

START YOU IN BUSINESS FOR YOURSELF. Be your own boss. Be a ney-maker. Open up a tittle plating shop. We do all kinds of plating ourselves, have nos and outfits all sizes and send them out complete, with all tools, lathes, wheels, and mater-

us, everything ready for use.
WE TEACH YOU EVERYTHING, FURNISH ALL RECIPES, FORMULAS, and TRADE SECRETS FREE, so that any one of intelligence who follows our direct THE ROYAL SILVER OUTFIT, PROF. GRAY'S FAMOUS DISCOVERY, THE NEW DIPPING PROCESS, is the latest, quickest, easiest method known. Tableplated by simply dipping in melted metal, taken out instantly with the finest, most brilliant, All ready to deliver to customers. Make thick plate every tin Suaranteed to wear 5 to 10 years. A bright boy plates 200 to 300 pieces tableware aily, from \$20 to \$30 work of work, profits almost 1,000 per cent. Goods come out of later finely finished. NO POLISHING, GRINDING, OR WORK NECESSARY

THE DEMAND FOR PLATING IS ENORMOUS. Every family, hotel, restau int, boarding house, jeweler, repair shop, storekeeper or manufacturer has good eding plating. Every one has goods plated instead of buying new, because it is cheaper at iter. You will not nepd to canvass. Agents write they have all the goods they or ite. Feople bring it for mass around. You can hire boys cheap to do your plating the san we do, and solicitors to gather work for a small per cent. Put a small advertisement or two per local paper and you will have all the plating you can do. The plating business is honest are itimate. Plating on our machines gives good satisfaction, wears for years, customers are alway lighted and recommend you and your work.



The above firm is thoroughly reliable and do exactly as they agree -EDITOR.

Written for Green's Fruit Grower by N. A

er and does well in localities where many

other sorts will not thrive. One of the

Pippin, another good variety, is very large,

roundish oblate, skin bronze and colored

n the sunny side with red. The quality

is good. Season Nov. to Feb. In some

sections the tree is not thrifty. It likes

and good bearer .- Prof. W. S. Blair, N. S.

School of Horticulture in Farm and Home.

Blenheim apple came to us years ago as Lord Nelson. It is a vigorous grower,

Current Worms and Curculio.

I find the current worm, plum-fungus,

strument, easily operated, durable, cheap

as possible, with which to spray. Shall

use copp. sulph., sometimes. The work is

trees and 100 current bushes .- N. A. T.

(Reply: In regard to the currant worm

we have a knapsack sprayer which holds twelve quarts of water, which is strapped

on the back. We spray our currant bushes

hellebore and water. Our May issue

always contains a spray calendar, giving

Plum knots must be cut off as fast as

they appear, and burned. The jarring of

sheets spread beneath, is still considered

the best method of destroying the curculio

Leaf Eating Insects.

A subscriber to Green's Fruit Grower

sends us a sample of leaves and nests in

order to indicate the character of an insect

which has defoliated his trees the past sea-

son and asks the name of the insect and

method of destroying it. We have sent

these leaves to the Geneva New York Ex-

periment Station, and have received the

Dear Sir-It is impossible to tell definite-

ly what the insects are from the specimen

of last year's nests that were contained in

your correspondent's letter, but we judge them to be those of the tent caterpillar. In

any case, since the worms eat the leaves,

the remedy would be to spray as soon as

the young worms appear, with Paris green,

York Imperial Apple.

I have read with interest the proceedings

of the Western New York Horticultural

Society and among other remarks on fruits

York Imperial, to which I wish to add my

experience with that variety. I was born

and lived there until 1885. In 1867 I planted an orchard of 100 apple trees, 20

of which were York Imperial. In abou

six years I gathered about four bushels of

apples. I also had some other varieties,

and in order to keep them over winter dug a round hole about 10 inches deep and

Plant

Now

Cumberland Co., Pa., in the year 1821,

noticed that expressed on the one called

Editor Green's Fruit Grower:

following reply:

-Editor Green's Fruit Grower.)

causing the curculio to fall upon

with this, the spray being composed of

not extensive, only about a dozen small

naper will you kindly rec

Grand old Niag'ra's mighty fall





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ALBANY WONDER SPRAY PUMP. Any Man or Boy can earn \$200 or more during the next 3 or 4 months showing Albany Spray Pumps to farmers and gardeners everywhere. Big profits to the right people. One Agent sold 1,000 pumps last season and cleared over \$600. Over 200,000 sprayers in use. The Albany is the cheapest good pump made. Retails for \$1, but for 10 days we will send 2 in one package for 50c. each. Better send one dollar for two. After the 10 days 'time expires retail price will be charged on single orders. Write for full description and terms to agents. Send for circular: A, Feed Cookers; B, Hot Air Stoves; C, Steel Plate Ranges.

ONE

GRANITE STATE EVAPORATOR CO., Box 153, Albany, N. Y.





Dear Sir-The continued drouth last auamn may have had something to do with the poor condition of raspberry canes this spring. They are not showing the vitality that they should after a mild winter. Straw-Best Money berries are in fair condition where properly ※伝統は * Red Cross Currant * ※XXXXXXX mulched last fall. Peach buds are mostly Quality Maker killed, the trees being covered at least three different times with ice which undoubtedly ATTENTION: injured them. Apples, pears, plums and cherries bid fair to make a crop. The blackberry canes are showing an unusual In order to reduce stock, we offer vitality at this season. Six weeks later might make a different showing. Will try and give revised opinion in June number of Fruit Grower.—Albert Cottom, South-IF ORDERED NOW! The New Red Cross Current eastern Iowa. STRONG, 2-YEAR OLD BUSHES. Editor Green's Fruit Grower:

at about same price as older and inferior varieties. Write for prices per 100 or 1000. Rural New Yorker says: "Red Cross is the best of all old or new currants for midseason." N. Y. Experiment

Station says it is large and productive. We are headquarters for Loudon Red Raspberry plants.

Now is the Best Time to Plant.

Greatest XXXXX * Red Cross Currant * XXXXXXX Yielder

Results from atoms very small, Earth known as rain-drops first of all, Employed in freshening herbage dry, Ne'er utr'ring groan nor weary sigh Since comrade drops were praised more high From hillslope on thro' vale they sped, Reflecting somber hues or red, Useful where'er their course was led. In larger and yet larger streams
They found their work—no idle dreams. Great trees from tiny seedlets grow; River and sea from rain-drops flow One humble life's results—who knows Where, now, in what its littles blend? hars we never would have made the dis-Ever on, on its way must tend. Resolve and act well, grand the end. Wealthy and Blenheim Apples. put in York Imperial apples, the The wealthy apple is a vigorous grow There may be hundreds who have er, very hardy and productive. The the York Imperial apples who do not know fruit is handsome when well colored and how valuable they are.-B. Goodyear. of fair quality. It is from medium to large in size, roundish oblate, slightly conical. The skin is whitish yellow, Be a Working Boy. mostly overspread with dark red. The flesh is white and juicy and of fair quality. Season Oct. to Jan. It is an annual bear

hardiest varieties grown. The Blenheim good, light, warm soil. The tree is a regular be with you." fruit very large, handsome, and of good quality. There is no better early winter variety.—Editor Green's Fruit Grower.

Devious Definitions.

love's banquet. Humility-The uniform worn by hypo crites on dress parade. Whistling-The transformation of curculios, etc., too much. Through your pular air into an ill wind

is compelled to pay the public. Love-Something that makes the flutter and the tongue flatter. Critic-A man who can see no merit i anything he doesn't do himself. Anxiety-The cause of more brain

Logician-An individual who can figure out anything to his own satisfaction. Language Something used by lawyers to conceal the thoughts of their clients. Timetable-The one you acquire by paying for it on the weekly installment plan.-Chicago News.

judge, who has been staying at the Springhill Kennels, Laurel, Md., will return this week to England to fulfill several judging ngagements on the other side.

Mr. Purdy was so pleased with the barred Plymouth Rocks he saw on this side that he is taking a dozen of them and also four white Wyandottes to compete at the English shows. Mr. Purdy feels confident that he will be able to win with the American birds. He expects to return to Laurel early in January with another lot of English poultry to compete at the Madison Square Garden show, to be held in New York city early next year.-Baltimore Sun.

FREE CURE.

one pound to 150 gallons of water, adding to this two pounds of lime freshly slaked to prevent burning the foliage.—Very truly yours, W. Paddock, Assistant Horticultu-Kidneys and Bladder, Bright's Disease, Rheumatism, Gravel, Pain in the

Disorders of the Kidneys and Bladder cause Bright's Disease, Rheumatism, Gravel, Pain in the Back, Bladder Disorders, difficult or too frequent passing water, Dropsy, etc. For these diseases a Positive Specific Cure is found in a new botanical discovery, the wonderful Kava-Kava Shrub, called by botanists, the piper methysticum, from the Ganges River. East India. It has the extrabotanists, the piper methysticum, from the Ganges River. East India. It has the extraordinary record of 1,200 hospital cures in 30 days. It acts directly on the kidneys, and cures by draining out of the Blood the poisonous Uric Acid, Urates, Lithates, etc.,

powers in Kluney and other disorders becauliar to womanhood.

That you may judge of the value of this Great Discovery for yourself, we will send you one Large Case by mail Free, only asking that when cured yourself you will recommend it to others. It is a Sure Specific and can not fail. Address, The Church Kidney Cure Company, No. 439 Fourth Avenue, New York City.

ADIES I Make Big Wages

AT HOME—

and will gladly tell you all about my
work. It's very pleasant and will
dily pay \$18 weekly. This is no describe. I want no

put in some straw, filled it up into a cone with the different varieties. The following March a deep snow fell and the sun shone out warm. In a few days it was all slush and water. I opened up my apple hole, which I had covered with straw and earth and found my apples in water. I took them to the cellar and in less than two days my York Imperials turned black: the skin shrunk loose. My wife asked, "What shall turned out that they made the very best canned fruit that ever graced our table. Had it not been for that misfortune percovery of the very best use of the York Imperial apples. I mentioned our experience to a nursery man. "Well," says he, "I know that when you preserve quinces, and quantity, you can scarcely tell the differ-

Bob Burdette says: "There are young men who do not work, my son, but the world is not proud of them. It does not know their names even; it simply speaks of them as Old So-and-so's boys. Nobody likes them, nobody hates them; the great busy world doesn't even know that they are there. So find out what you want to be and do, son, and take off your coat and make a dust in the world. The busier you are the less deviltry you will be apt to get into, the sweeter will be your sleep, the brighter and happier your holidays, and the better satisfied will the world

Divorce-The cold lunch that follows

Abuse-The penalty an eminent man trouble than anything else except love.

Mr. Will Purdy, the English poultry

KIDNEY AND BLADDER

Mailed to all Sufferers from Disorders of the Back, Dropsy, Etc.

sonous Uric Acid, Urates, Lithates, etc., which cause the disease.

Professor Edward S. Fogg, the Evangelist, testifies in the Christian Advocate that the Kava-Kava Shrub cured him in one month of severe Kidney and Bladder disease of many years' standing. Hon. R. C. Wood, of Lowell, Ind., writes that in four weeks he was cured of Rheumatism, Kidney and Bladder disease, after ten years' suffering. His bladder trouble was so great he had to get up five to twelve times during the night. Rev. Thos. M. Owen, of West Pawlet, Vt., and others give similar testimony. Many ladies, including Mrc. Lydia Valentine, East Worcester. N. Y.; Mrs. Maria Wall, Ferry, Mich., also testify to its wonderful curative powers in Kidney and other disorders pecular to womanhood.

Thet you may judge of the value of this



Written for Green's Fruit Grower.

BRIEF SYNOPSIS—The scene of these stories is a gun store and repair shop, with patrons of the place lounging about as shown in above cut, which is taken from a photograph. The characters introduced are Timothy Burns, the proprietor, who wears a cap and is the central figure; he is represented as in the act of relating a story; the big Englishman, the bald-headed man, the grey-haired man, and the fat man, who was lean and aglie in his youth. These men, who are old hunters and fishermen, drop in daily to talk over hunting and fishing experiences. They are often joined by sportsmen from the country, and at times by Timothy Burns himself, who usually takes the prize for startling climaxes and hairbreadth escapes. The incidents related are from actual experiences.

Third Paper. THE OLD FISHING HOLES.

"When I was a boy," said the graynaired man, "I spent considerable time fishing upon the banks of the Honeoye Creek, which is a branch of the Genesee shores of this creek, and naturally I knew every fishing hole for a mile or more up and down the stream. As I recall those we do? Those apples will not keep. I'll days, I wonder why there should have been peel them, quarter and can them." And it only four good fishing holes along a mile was too busy catching trout to pay much days, I wonder why there should have been self alone in the midst of a big forest, but or more of this creek, opposite our farm. attention to my thoughts or anything else. There was one fishing hole at the east near Suddenly, on looking up toward a bluff the entrance of a spring brook; there was another further west, almost opposite our ouse, near a bend in the stream shaded HOW THE BLACK BEAR WAS by large oak trees; there was another further west at the foot of a high bank, surmounted by a beautiful grove of maples; the other fishing hole was still further west near the mouth of a large not pretend to say there were acorns on brook. The stream along all this course an oak in June, do you?" was somewhat affected by a mill dam lo-

cated a mile below. had fished thirty-five years ago and found crotched sticks stuck in the bank opposite these old fishing holes, the same as I had seen them in days gone by. Why should them elsewhere? In old days there were plenty of common fish in this stream; such fishing holes mullet weighing three to five bear business perfectly.' pounds. I never knew any one to succeed anywhere else except in these holes, unless it was at trolling for pickerel. In our village lived a man by the name of Dauchy, who was an expert at catching pickerel with spoon or minnow. He could catch pickerel by the basketful where others might fish in vain. An old whitehaired man, a Pennsylvania Dutchman, spent his entire life in fishing along this creek, aside from the little work he did in his garden. He moved from one of these fishing holes to another, never tackling any

other spot so far as I am aware. creek near our house, called the 'snake water snakes found there, and in this place we caught nothing but bullheads, which were plentiful. I remember as a child the difficulty I experienced in getting these bullheads off my hook, without getting

pierced with their sharp fins." "Speaking of fishing holes," said the bald-headed man, "reminds me that my guide once carried his boat over a mountain in the Adirondacks to Charlie's Pond, a little lake seldom frequented, where we caught large numbers of fine trout, and we caught them all at one end of the lake at ne particular spot, having no success elsewhere on the lake."

"I once fished for pickerel and bass on a large bay setting back from Lake Ontario, on the Canadian shore," said the hig Englishman, "and while we caught large quanties of fish they were nearly all taken from one focality. There can be no doubt that fish have their peculiar feeding ground. They may not be found on this same feeding ground at different seasons of the year.

"That's so," remarked the fat man.
"Last season I camped out with a party on a wild lake far back from civilization. When we saw the lake in all its wildness we supposed we could catch bass anywhere by simply dropping in our hooks. Not so, however. There was only one spot, miles away, where the bass could be caught, and this spot was where a brook entered the lake-a deep hole, with weedy shore and lily pads near by. Now, if a stranger should visit that lake, or many other lakes, without a guide, he would be likely to return home with an empty basket."

TIMOTHY GOES AFTER TROUT AND MEETS WITH A WILD ADVENTURE.

"I want to tell you old hunters of trip I once had in the wilds of Pennsylvania twenty-five years ago," said Timothy as he strolled out of his den and approached the loungers of the club, with both hands thrust deep into his trouser pockets, and with a very profound and sincere expression upon his benign counte-"I used to fish in those days with a Rochester man by the name of Reed, a man much older than myself but a great enthusiast and a successful fisherman. He and I had planned to join a Baptist minister at Olean, N. Y., also an enthusiast, and an uncle of mine at Olean, from whence our party of four was to proceed to a high point in Pennsylvania, heavily timbered, rough and mountainous, from the southerly slope of which sprang the head waters of the Alleghany River, and from the northerly slope the head waters of the Genesee River. A new railroad had just been completed through this wild district and I was informed that there were plenty of trout in that locality.

enter the woods that night) at the station more than another that bears like to eat, where our hotel was located, which was to e our headquarters. I strolled out with my rod, and within sight of the hotel caught several nice little trout in a small brooklet not much larger than an open resting the pole upon our shoulders plodded farm ditch. I noticed on the platform of on slowly and painfully to the spot where he railway station several coils of strong we had left our wagon. We consumed but fine-meshed wire fencing, the wire be ing woven to stand about six feet high when erected. That evening supper was not served early, and later we discovered the reason. They were waiting for the

calves or almost anything in the lin meat. You fellows seem to think you

trout would hide and dart out to be caught by our alluring bait. Now and then the stream would run into a lot of brush in which it was hardly possible to handle the rod. We found several branches of this brook, one of which I ascended, fishing as I went with very fair success, until I found that I had become separated from River. Our farm was located near the my companions, who had either gone far down the stream, or off on another branch. I experienced the peculiar feeling which every one has on finding him-

> fifty rods distant, I saw a big, black bear climbing an oak tree.

> > CAUGHT ALIVE.

"What was the bear climbing the oak for?" asked the big Englishman. "You do "Perhaps there were acorns, and per-

haps there were not," replied Timothy. "Last fall I visited this stream where I "If you want to learn more about this bear story just keep quiet until I get through and you will hear the whole thing. Remember that I am telling this story. You Englishmen may be good enough to manthe fish congregate in these four spots, and lage Boers but not to manage bears. When why should it be almost impossible to catch | I was in Canada last year I saw oak trees each one of which had a dozen or more broken branches, showing where the bears as mullet, suckers, rock bass, bull-heads had sat in the trees, pulled in the branches and pickerel. We often took out of these and eaten the acorns. I understand the "How could the bear sit upon an oak

tree?" asked the bald-headed man.
"There it is again," replied Timothy. "You are not satisfied to have me tell the story my own way, but have to get particulars in advance of their proper places. This was not a very tall oak tree. Where the head branched out there was a large crotch and in this crotch the bear was partly seated.

'Well, my interest in trout fishing abated from the moment I saw that big bear. simply clutched my rod, unconscious where my line went, and gazed in wonder at the "There was a little bay setting in from sight before me. After regaining my senses I quietly withdrew without alarmden' on account of the large number of ing the bear, and began a search for my companions. On finding them I told them what I had discovered, and proposed that we make an attempt to capture the bear. "How? we have no guns," was the reply

"I have a plan by which it is possible that we may catch the bear without killing him. Let us send the guide to the station for a big coil of that fence wire which I saw there. Then leave matters with me. After the guide had departed on his errand I proposed that one of the party should steal quietly around on the opposite side and climb the steep bluff, which was well clothed with bushes that would prevent the bear discovering the presence of his foe. On arriving at the top of the bluff the man was to rush up to the tree with a club and pro vent the bear from escaping, after which the rest of the party were to rush up in full view of the bear. This plan was carried out successfully, and it was not long before we had the bear trapped in the tree. Several times the bear made an attempt to descend and get away, but we attacked but at the same season you are apt to him with clubs, which with our demoniacal shouts and screams, caused him to retreat nearer the top of the tree.

> "It seemed a long time to wait for the guide to return, but it was probably not an hour before he made his appearance with the coil of strong woven wire fencing on his back. Then we strung the fence wire in an upright position around the oak tree, wiring the ends together, making a high enclosure, such as is seen often in a poultry yard. Now we were ready for the bear to descend, and we did not have to wait long. Down he came with a rush, making a bound for freedom, striking the wire fence with such force as to bulge it out almost flat, or egg shape, but we were prepared for him, and with our clubs beat him unmercifully, causing him to retire. While the bear was recovering from this clubbing we succeeded in lapping the ends of the wire fencing rapidly in such a manner as to bring the bear into very close quarters, doubling and redoubling the wire fencing, as we narrowed his enclosure, until the bear scarcely had room

"Then suddenly the bear reared on hi hind legs as he often had done, and then we contracted the enclosure still smaller, so that the bear could not regain the ground with his forefeet, but was held in an upright position closely confined on all sides by the strands of the wire fencing Now, we had the bear. We sewed the ends of the tube in which the bear was caged securely over his head, and behind his hind feet "Having the bear safe we took time to

rest, and look about, and now I will explain to my English friend why it was that the bear was up in this oak tree. We found that it was a bee tree, and quite a way up in the top was a hollow place, and in this cavity the wild bees had stored a "We arrived toward evening too late to quantity of honey. If there is one thing it is honey. "Well, we had quite a time getting our

prize to our hotel. We suspended the bear, cage and all, beneath a long pole and nearly half the day in reaching the hotel. Imagine the surprise of the proprietor on seeing the game we had secured. We de-cided not to continue our fishing, but to re turn next morning in order to make sure of

the safe arrival of our prize at Rock where I knew they wanted a bear curiosity in one of the city parks. norning, with our bear deposited aggage-car, we were rolling on to When the bear was placed on train I noticed in the baggage car se crates of valuable poultry. It that there had been a poultry show for er up the road, and each crate cont poultry which had been on exing There was one crate containing Shanghi fowls for which a passenger me he had paid twenty-five dollars;

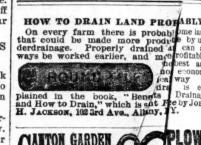
crates contained equally valuable bir "We had not journeyed far before conductor rushed in with terror depi on his countenance, announcing that bear had broken loose from his wire and was at that moment foraging in express car, from which the baggagehad fled in terror. What was to be d The bear would make quick work of oultry, and the damage might be se andred dollars."

"But," said the bald-headed man. don't eat poultry."
"Don't they?" replied Tim. "I known bears to carry off pigs, s

more about bears than I do.
"Well, the train was just pulling a wild looking station in the midst of EARS. ROEBUCK & CO. woods. When the train stopped all passengers got out and debated who to be done with the bear. It was fi decided that the door of the express should be thrown open, and that two l ers who were on the train were to stand one side and shoot the bear as it esca

from the car. The door was thrown but no bear appeared. Then a big bu was thrust into the car. He had scar entered when the bear shot out hunters fired at the bear without tor it. All we could see was a black bounding off through the woods. hunters fired at him again but the bird shot seemed to increase the spe the bear, which was soon out of "And that was the last you saw o bear?" said the fat man.

"Yes, that was the last. We board train again, mentally kicking ourseld not having made the bear safe by more wire fencing about his cage see a bear has wonderful strength hind legs. This fellow kept at woun at last he got a purchase with then he tore the wire strands arious they were cotton strings."











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7. Wm. Blaklock, Proprietor. VANTED Machinery: steam gine cider press, cider tan ttles, floor scales, sifting machine Shedd, Canastota, N. Y. C. GOULD, real estate, has confice from Jamestown, N. Y., eek, N. Y., and still wants to d village property. Any desirab ken, and best service given. Lo

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horns, Silver Laced Wyandottes, 15 \$1.00; 39, \$2.00; Pekin and Rouen duck, 11 for \$1.00; 25 for \$2.00. Also Light ma eggs. J. W. Cook, Poneto, Ind.

Hobart, Chittenango, N. Y.

they wanted a bear a of the city parks. So our bear deposited in ve were rolling on towarthe bear was placed on t in the baggage car sever able poultry. It appea been a poultry show fur and each crate contain had been on exhibition e crate containing for which a passenger d twenty-five dollars; othed equally valuable birds d in with terror den nce, announcing that loose from his wire cr at moment foraging in t om which the baggage-m What was to be don make quick work of the damage might be seve

replied Tim. "I h to carry off pigs, shee ost anything in the line ows seem to think you kno ars than I do. ain was just pulling in station in the midst of th the train stopped all of t out and debated what w the bear. It was fina the train were to stand ot the bear as it escape eared. Then a big bull d the car. He had scare the bear without touch see was a black str through the woods. him again but the d to increase the speed as the last you saw the

fat man. ntally kicking ourselvfor the bear safe by wling wonderful strength his fellow kept at wo until wire strands ashough n strings.

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as good—and better than many of ts that are on the market now. Fifty tas experience in making paints, varnishes, takes and floor oil, over 200 recipes to be d separately. Write for particulars. Ad-

OR SALE—A fine vineyard. 225 acres of fine land, 35 acres of this is in grapes, sches, plums, pears and blackberries, the uk of the foregoing being grapes. There is food 4-room house, out-buildings, and a use fruit packing house on the place. This ineyard is located one and one-half miles from the well known winter resort, Southern lass; both towns are excellent markets for appur produce. The grapes, peaches, plums, plus produce. The grapes, peaches, plums, as and blackberries are all in full bearing. see \$1,200. (Twelve hundred dollars.) This real bargain and will not be open long. further information address Junge and k, Southern Pines, N. C.

IGH grade Barred Plymouth Rocks, exclusively. Hawkins Thompson strain. ARM FOR SALE.—Clay Banks fruit farm.
Ars. G. Miller offers her farm for sale,
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saring fruit trees. Good buildings, four
alies from railroad station, near a Catholic
anch. Write for further information. Mrs.
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NIGLE and Rose Comb White Leghorns, R. C. Brown Leghorn Fggs, 75c. for 15. and Mrs. S. Rider, Maryland, N. Y. LXXX Var. Prize Poultry and Pigeons; 20 csgs, \$1.00. Cat. 4c. Cir. free. J. D. onder, Telford, Pa. PROFESSOR H. E. VAN DEMAN, ASSOCIATE EDITOR OF

GREEN'S FRUIT GROWER.

We have entered into an arrangement with our popular and well-known correspondent, Prof. H. E. Van Deman, by which the professor will be more often heard from through the columns of Green's Fruit Grower. Our readers have many questions to ask regarding varieties of fruits, methods of culture, etc., and we do not know of any one better qualified to answer these

questions than Prof. H. E. Van Deman.

The Van Deman papers will be continued as before. These papers have been largely read throughout the country, and generously copied by other horticultural and agricultural journals. Send on practical questions on fruit growing for the professor to answer. Ad-

says: "Probably the most feasible and successful plan is to paint the bases of the trees with some preparation that will repel as if the trees were lower headed. says: "Probably the most feasible and suctrees with some preparation that will repel the moth or poison its larvae." He recommends soft soap, 10 gallons; corrosive submate, one and one-fourth ounces; alcohol, one pint. Now what do you think of this?

Would you recommend it? 2. I expect to set out a few trees this spring in the yard, among them being ten chestnut trees. As I cannot cultivate them there would you recommend mulching with

I see some writers claim this will bring the roots too near the surface. What is

your opinion? 3. Now I will state a little experience A few years since I saw an article in Fruit Grower where a woman put wadding saturated with turpentine around her plum trees to keep off curculio. Well, I tried it on a small scale and killed nearly all the trees. Those that did not die are ruined.

1. The preparation mentioned might do some good, in the way of preventing the moths of the peach tree borer from laying eggs on the bases of the trees but I doubt The alcohol could only serve to dissolve the corrosive sublimate, which is a deadly poison to anything it touches or that eats it. But it cannot get inside the bark to kill the borers, and the rains would oon wash off the soap and all else with it that is not of a sticky nature. If whitewash with a little tar and plaster of Paris nixed in was made and applied it would be better as a preventive.

Common paper wrapped about the base

so long as it stays on, and is cheap and 2. Mulching does bring the roots to the surface of the soil, but not always to a damaging degree, if it is not kept up too long, or if kept up so long as the trees live. To bring the roots to the top of the ground by mulching and then plow it is very hurtful to the trees; but if it can be continued ndefinitely it would be very good for them.

of the tree and tied fast is quite effective

3. It is no wonder the trees that had turpentine applied to them died. This is virulent poison to vegetation. Nor will i keep away the curculio. That little insect flies from tree to tree, and if there was enough turpentine put under or upon a fruit tree to make a smell strong enough to keep them away, provided it could be done, and which I am unable to either dis pute or affirm, it would surely kill the tree.

First. In planting an orchard of three hundred and fifty quinces would you advise planting the same wholly to Bourgeat's variety? Also, what is the nature of this quince?

Second. In planting 20,000 gooseberries what varieties would you select?
Third. Would you advise planting two rows of gooseberries between rows of pear trees sixteen feet apart? In the above age not much in excess of ten years. orchard are Standard and Dwarf trees. mixed between each other, every other row and every other tree being a Standard. came from your nursery and I admire them

Fourth. I also have another orchard of 300 Standard Bartletts, five or six years old, which has been neglected for want of at the time I purchased those trees, that a Standard pear never needed pruning, I followed it with above results. The trees lean to the east a little with long, slender limbs and comparatively little of last year's growth.

Now the question is this: I want to ge more growth, and by cutting them back severely on the old growth will new growth form all right? Or will it throw them int fully bred stock. Eggs for hatching. No. 1, \$2.50 for 26. Pen No. 2, \$2.00 for Choice Buff Plymouth Rock eggs, \$1.50 %. Edgon W. Safford, Montrose, Susquea Co., Pa. bearing condition? Also, must I weight the limbs on west side?-Yours respectfully, H. G. Miller, Wyoming Co., N. Y.

Reply: 1. The Bourgeat quince is one of the new varieties, and has therefore only been grown in a small way as yet, but it i spoken of in the highest terms by those who have tested it. The tree is large and thrifty and the foliage remarkably healthy and able to resist the attacks of fungus diseases. The fruit is large, of good qual ity and keeps well for an early variety While it might be unwise to risk planting the whole number of trees, yet it would probably turn out well. The Orange quince is the old, reliable variety and it might be wise to plant a portion of the

orchard to it. 2. The most profitable native American bushes are productive. While there are other good kinds these are the ones I would plant in New York. If mildew should be come troublesome, study the spray calendars in the rural papers and experiment station bulletins and follow their direc-Sulphide of potassium is the best

remedy to use.
3. No, I would think it a very bad plan for both the gooseberry bushes and the pear trees to plant them together, and especially when the trees are so close as sixteen feet apart. Strawberries would be much better, for they would be only tem-porary, while gooseberry bushes are long-lived and should yield profitable crops for many years. They would, in some measure, rob the pear trees after a few years, and besides, they would need the open sunlight and full use of the soil as the trees attained large size. The plan of having the dwarf pear trees among the standards

as fillers is very good.

4. It was bad advice given when the orchardist was told that "Standard pear trees never needed pruning." They do need it in almost every case, and that, too each year, although not heavily at any one time. The best pear growers head back their trees moderately and regularly, training them to a low pyramidal style, with open heads, so the sunlight can get among the branches and leaves to help develop and color the fruit. Many kinda of pears have very tall and ungainly habits of tree and need to be curbed in their lofty and rambling growth as much as heady, way-ward children. Had these trees been prop-erly pruned when they were younger they would have been very different looking trees and would not need so much of it now. The westerly winds which prevail

1. I see in August, 1895, number of Fruit are slender and tall, when they should be Grower an article headed, "Head Off the stout and stocky, and able to hold large Peach Borers." In that article the writer crops of fruit without injury. This they

The plan I would follow to bring the trees into better shape and more even growth as regards the east and west sides, and all over, would be to cut back the tallest branches of these tops and the branches on all sides but especially on the west and south where the growth is the weakest. This will induce a more spreading habit in these branches, pro-vided it is done when the trees are dormant. It might seem that the cutting off of branches on the weaker side would not cause a ranker growth, but it will do so if done when the trees are not in active growth. It will also cause rank growth on the tops and sides where it is not wanted, if it is not properly managed; although there must be a more spreading habit induced instead of long, slender branches. Then, about July, the rank, growing shoots on the top and east side should be cut back to check them, for this is the season to accomplish this end. A branch cut back in mid-summer will rarely grow more that year and it has the same effect, in some degree, for years afterward. Summer pruning has a tendency to bring tree into bearing, while winter or spring pruning induces wood growth. Where a tree has branches that bend towards the wards sufficiently, as they are apt to do on the southwest side, they may be caused to take the desired position by bracing them outwards, rather than by bending them down by weights. I have often used sections of stiff cornstalks for this purpose. A little ingenuity will show some nice work with this cheap material.

1. Are Japan plums subject to peach yellows?

2. What is the average age Japan plum rees reach under good treatment? 3. Do you not think there will be overproduction of Japan plums in a few years so that it will be difficult to sell them,

as they are not much used for culinary purposes? 4. At what age do Richmond cherrles bear, and do they stay small or dwarf

5. How does the size of the fruit of Early Richmond compare with Tartarian and do they ripen earlier?—Resp., J. H. S. Reply: 1. The Japanese plum trees sometimes take the peach yellows, for which we

know no remedy at present, except to dig out and burn every tree on the first sign of the disease. 2. This class of trees has not been grown

long enough to prove to us how long they will live under proper treatment. But it is thought that they will be rather shortlived; because of their early and heavy bearing. It is my opinion that none of the varieties will endure much longer than the average peach tree, which has a profitable 3. This matter of over-production fruits of any kind is largely a mistaken

idea. There is often an excess of the This orchard was set last year. The trees poorer grades of fruits, but not of really good fruit. It is the poor stuff that lowers the prices of all grades by its very presence in the market. Japanese plums are no exception to this law of trade. There will always be room for really good, large trimming and heading back; as I was told plums. These can only be grown by good culture and thinning when the trees are loaded, as they are apt to be. There is no kind of plums that is better when cooked than the varieties of the Japanese class, and this fact is becoming better known, and as it does, the call for them will increase. The canners will use them extensively in course of time, so I believe.

4. The Richmond cherry is an early bearer, usually beginning when the trees are not over three or four years set. As they are usually budded on mahalab stocks they rarely attain as large size as they would on their own roots, but in no case are they as thrifty growers as the usual type of the sweet cherries. The objection to them growing on their own roots is the sprouts which come up. I have grown them both ways, and prefer those on mahaleb. In either case the trees are not dwarf in habit, but of moderate size. 5. The Richmond cherry is smaller in fruit than Tartarian and ripens at about the same time, or a few days earlier.

What Varieties of Sweet Corn to Plant.

"What shall we plant of sweet corn?" is 2. The most profitable native American one of a class of questions frequently variety of gooseberry is the Downing. It asked of seedsmen, and I therefore infer s exceedingly productive, large in size of that an answer to it would interest the fruit and good in quality. Industry and readers of your journal. For early corn, Keepsake are two of the best of the everything considered, the Corey still heads European kinds, and unlike the most of the list. One fact of special import is not that class, are very little affected by mildew. The fruit is very large, and the than most, if not all, other varieties, and hence can be planted several days earlier than it would be safe to plant other early

After Corey, for those whose plans make it wise to have a week's interval between their varieties, might well be considered the Quincy market. This is a great crop per of ears that run not only large, but just about as sweet as that delicious but later variety, Potter's Excelsior, Original Crosby, another Boston favorite, will follow the Quincy Market; and after this follows, in the order of maturity, Potter's Excelsior, or "Squantum," as it is called in Rhode Island, its native home.

The next, in order of ripening, would b

Horse Owners! Try GOMBAULT'S Caustic Balsam The Safest, Best ELISTER ever used. Take a place of all liniments for mild or severe action moves all Bunches or Bernishes from Horses of Cattle. SUPERSEDES ALL CAUTERY R FIRING. Impossible to produce sear or blemths.

FIREPROOF IRON SAFES

the Country Gentleman, a very thin-ker-neled and sweet variety. Stowell's Ever-green would follow in natural order and peaches are frested, and about one in the season be wound up by the latest of all

erits, yet the above I consider an excellent selection for either marketing or for are better.

family use. There is one variety whose I think the man who has a fruit farm color puts it under a ban as a market sort until its merits become known. It is, however, worthy of a place on every table. I refer to the Mexican Sweet. This is not only exceptionally sweet, but probably the tenderest corn catalogued, which makes it a favorite with those whose dental furniture is not of the best.-American Cultivator.

CROP REPORTS.

Report from Idaho. Editor Green's Fruit Grower:

Our people are planting orchards extensively with prospects of enlarging. Our country borders on to the extremes in the ame county. Down on the rivers (which are sometimes down in a canyon half a mile deep and six miles across) they grow grapes, prunes, apricots and peaches by the earload, as fine as California or anywhere else. The soil along the rivers is sand-bars and have to be irrigated. The climate is mild in winter with but very little snow, cattle and horses living on the range all the year. The summers are hot and dry, the thermometer reaching 115 degrees. No timber except shrubs of willows and such things along the bank. The country puts on its brown coat in July. But up toward the skies above these canyons we find a black, loamy soil of fine rolling prairies with mountains of timber in the far-off background. No irrigation up here, and this beats any other place of which I have any knowledge to grow the winter apple John R. Hepler, of this place, holds both the diploma and medal from the World's Fair at Chicago on winter apples. Some plant as much as one hundred acres though most of the orchards range from thirty to fifty acres. The Ben Davis, Roman Beauty and Jonathan seem to be the three leaders. The Jonathan is a winter apple here and will keep till March or ards as large as forty acres up here in this high country. But what seems the most strange is the way that apples keep that are growed up here in the skies in have lost most of their flavor, but they are they would rattle like stones, yet after they thawed out one could tell no difference, and they went on the market all right. -Andrew B. Climetis, Idaho.

We have had a mild winter and prospects for a full crop of all kinds of fruit was never better. But it is raining and sleeting here to-day and may have some effect on the peach crop. Will report later. way facilities.
C. N. Butt, Knox Co., Ill. Fruit promises to be a heavy crop in

Editor Green's Fruit Grower: Apples promise full crop; trees and buds n prime condition. Peach trees not cut back last spring in bad condition. Others in good condition and prospects indicate fair yield. Acreage of all berries smaller than usual. Strawberries in bad condition. Blackberries and grapes in fair condition.

Editor Green's Fruit Grower:

Dear Sir-By your request I will write report of fruit prospects of this county (Douglas), Kansas. I am ten miles southwest of Lawrence. The fruit prospect so far is good. No cold weather to injure the fruit buds. The winters of 1898 and 1899 were very cold; in spring of 1899 very wet; n fall hot and dry; that caused the older fruit trees to die to some extent, but the young trees of all kinds are in very good condition. The peach blossoms are beau-ties. Apples and pears are coming again. The strawberries and raspberries were somewhat injured by the dry weather last fall; but take all in all the outlook for fruit is very good so far as condition. I think the Fruit Grower is the best paper that comes on my table; would not do without it.—Yours, E. W. Flory, Kansas.

Sirs-I can report all fruit (save peaches) as yet safe in this county of Clermont, Ohio. The peach trees show marks of las winter's hard freeze, consequently fruit buds were weak.—Paul B. Huston, New

All fruit buds here in Northern Kentucky are in good condition except the peach, which were killed almost to a bud by the severe cold night of Feby. 24-25. On account of drouth last fall strawberry plants made a very poor growth, but where protected by mulch are in fair condition at this writing, April 1st.

There will not be many peach trees set

n this part of the State this spring, because of the failure of the peach crops for

I have for the past twelve years been buying more or less nursery stock from a Rochester, N. Y., Nursery Co., and and about concluded that they could not make mistakes, as up to last season I had found every tree and shrub procured from them to be true to name, but last year a fine cherry tree (the Windsor) bore for the first time, and it proved to be a worthless seedling, evidently the original stock.
Oh, well, I suppose I ought not to grumfirst bill of trees (which was from an In diana firm) only about ten out of fifty came

H. Clayton, Kentucky. Note-It is possible for an occasional tree to be a seedling. This occurs owing to the inserted bud or graft dying, and a strong, shoot coming up from the seedling stock, unobserved.—Editor Green's Fruit Grower.

edling cherry of the Tartarian type.-W.

Dear Sir-I read in your valuable paper that you wanted to hear of the fruit pros-pects. The peaches are all frozen in the low lands and damaged on the hills onehalf crop. Apples, plums, cherries and pears, grapes and all berries are not dam-aged and if nothing happens will have a full crop.—W. L. Schwartz, Oklahoma. Prospects are good here. Peach tre

are nice and thrifty and are now in full bloom where they have been cultivated and plums. Apples and pears are not in bloom, yet but we predict a full crop as also small ruit, grapes and berries.
Orchards in this part of the State are

scarce and poor care is given them, but people are beginning to set out more orch-ards and are waking up from their long sleep.—G. A. Moore, Arkansas.

acres in trees, vines and small fruits. My peaches are frosted, and about one in twenty of the buds are about all that can-

the season be wound up by the latest of all-varieties and yet one of the sweetest of all, the Egyptian. This line is of southern origin, which it shows in its habit of growth, the ears being very high up on the stocks.

If all the above-named varieties were planted the same day they would be marketable, under like conditions, in the order here given; but it would not be wise to plant so thin-kerneled a variety as the Country Gentleman before the ground had become thoroughly warm.

Seed catalogues contain many varieties (my own has 28), all of which have their merits, yet the above I consider an excel-

The prospect for fruit is good, and prices

now will make money as the business is over-done in small towns, and cities like Chicago, and millions of acres were taken teen acres than some of my neighbors did from farms of over 100 acres, and a living besides, and that is all any of us have here in this world. I will answer the apple question with my experience later, and hope this may reach you and be of some benefit. My trees and vines were nearly all bought from Green's Nursery Company, Rochester, N. Y.—J. J. Minnich, Michigan.

The prospect for fruit is good around here. The winter has been mild. Peach buds are in good condition. Apple and pear trees are set full of blossem buds. C. G. L. Oxford, Worcester Co., Mass

Large Peuch and Grape Crop Expected.

A careful inspection of peach orchards Van Buren County discloses the fact that the peach buds are in fine condition. The orchards give excellent promise of a bountiful harvest this season. Peach and grape growers expect to gather one of the largest crops in the history of the Michigan fruit belt. Grapes are all about trimmed.—D. C. Buck, Lawton, Mich.

Dear Sir-The spring is thoroughly pened up and the supposition is that there will be the largest peach crop this year that has ever been known in this State. -Yours truly, S. F. Ellis, Jesup, Ga.

Notes from Idaho.

Editor Green's Fruit Grower: March has been a month of almost un broken sunshine, and the winter throughout the finest known for years. The Nez Perce Indians, settled on allotments around us, still own bands of scrubby cayuse horses which have roamed at large along the valley of the Clearwater and in April. There are also a few prune orch- the timber of the adjacent plateaus all winter with a very small percentage of loss occurring among mares that were suckling young colts. Many of these Indians are rich in stock and lands, driving good rigs this dry, cool atmosphere. In April or and lording it over the comparatively poor first of May one will see apples lying on white homesteaders. Those of the Indians the ground as sound as ever. True, they raising have also conformed to the usages sound. Also, I have seen them frozen on of civilization in dress, others still affect the trees before they were harvested till the blankets and saddle horse. Vegetation is very forward for the season, as shown by the blooming of buttercups and other wild flowers, and the catkins now fully developed on the willows. Wheat sowing is in full progress on the Westlake and Cold Springs prairies. More flux and a correspondingly smaller acreage of wheat will be sown this season on account of the low price of wheat and limited rail-

the older parts of the country near Lewiston and in the newer regions many orchards are being planted.

In the Potlatch and Polouse fruit belts many prune-growers grew discouraged be-cause of low prices and dug up their trees, but the fair returns realized for prunes last fall has started the planting craze anew .- D. H. Gwinn.

From the Ozark Mountains.

Peach buds, some killed, but there will be plenty of peaches yet. Apples, pears, plums, cherries and small fruits all right. This is a fine fruit and grazing country. It is right in the midst of the Ozark Mountains. There are lots of rocks, but they don't bother a great deal; there is an experiment station at Mountain Grove. also a horticultural society and canning actory.-J. W. Kesner.

Look in the Orchard.

Look for fire blight on pear, apple and quince trees. Destroy it at once by removing the limb and burning the same. Look after grafts and see that they have chance to grow. Rub off the sprout near them. Look for the nests of the ten caterpillar and destroy them by using a rag saturated in kerosene and placed or the end of a pole.

See that hogs, sheep or cattle are not injuring the trees if they have access t the orchard.

Look for borers and remove them with knife and wire. Borers may be expelled by a whitewash containing crude carbolic acid and Paris green. See that wormy fruits are picked up and

destroyed. Sheep and pigs will do this cheaply. See that the orchard is well cultivated

and kept free from weeds.

Look to it that no grain crop is raised any orchard kept for fruit production Look for premature fruit on peach trees. Such appearing is a sure sign of yellows, and the whole tree should be removed even though only a single limb is affected. See that "water sprouts" or "suckers" re rubbed off trees as they start. This will injure the tree much less than if they are permitted to grow into large branches and then removed.

Look after trees planted this spring Loosen the ground about them and ther apply a mulch of leaves or straw. In rare cases the life of a young tree may be saved by the timely application of water.

Look for lice. If they are injuring trees,

spray with the kerosene emulsion, which s the best summer application for trees. See that the soapsuds are not wasted on wash days. Cannot some practicable devised that they may reach the orchard? Applied to the trunks of trees which have become scaly, soapsuds will Look to it that all the wood ashes reach

the orchard, the best possible place for them. Coal askes are not of much value as a fertilizer, but they loosen the ground, and are of benefit in the orchard. See that there are no scars on your trees, made by the removal of limbs, or by other

means, which are not covered by paint or some protecting substance. Care here may lengthen the life of a tree many years. Ob-serve which varieties of each kind of fruit are most productive on your own ground, as well as at your neighbor's, This may be of future value when about to plant a

new orchard.

Thin peaches, pears and plums if the fruits hang touching each other. What remains will grow much larger and finer.—G. G. Groff, M. D., in New York Tribune.

DRUGS. Brig and Remedy at About Office of the Drug and Remedy at About Office of the Duarter THE PRISE charged Tree Drug SEARS, ROEBUCK & GO., Chicago. In Cass County, Michigan, near south line and west end of State, is a small vilPoets, Read This.

"Eight thousand manuscripts were received by The Ladies' Home Journal during the year just closed. Each was given a careful reading, but out of the number only eighty were found worthy of publication." Think of it, only ten in a thousand accepted.

The "Osservatore Romano," the semi-official organ of the Vatican, referring to the Dreyfus case, asked recently, "why should the Church be blamed for not espousing the cause of a Semite accused of treason?" To which "The London Times' replied, "Who founded that Church but a Semite accused of treason?"

"Harold," murmured the beautiful maid en, shyly, "am I the only girl you ever told "I will tell you the truth, dearest," answered the manly youth, leaning fondly

over her. "You are not."

"I think you might have lied a little,
Harold for me," she said, turning tearfully away. Chicago Tribune.

The Combination Off Cure For Has the endersement of the highest ical authority in the world. It would strange indeed if persons afflicted with cancers and tumors, after knowing the facts, would resort to the dreaded knife and burning plaster, which have hitherto been attended with such fatal results. The been attended with such fatal results. The fact that in the last six years over one hundred doctors have put themselves under this mild treatment shows their confidence in the new method of treating those horrible diseases. Persons afflicted will do well to send for free book giving particulars and prices of Oil. Address Dr. D. M. Bye, Box 25, Indianapolis, Ind.

8 6

Wonders of the Human Hair Discovered Under the Microscope.

How Science Can Make It Grow and Prevent Gray Hair and Baldness.

NLY lately have we begun to learn the inside working of the human hair and scalp. The microscope tells us all. Following up facts learned microscopically, we now know what causes baldness, and, best of all, we know how to prevent it. A few hairs a day falling out is merely natural growth and removal, but a combful a day, or much hair coming cut when you run your fingers through it, is proof of disease. The microscope shows that a parasite working at the root of the hair causes it to lose lustre, crack or split, turn gray or fall Death to the parasite is life to the hair.

What the hair and scalp need is food. What the parasite needs is poison. The poison that kills the parasite-yet feeds the hair-is Cranitonic Scalp and Hair Food.

It makes the hair bright, glossy, wavy, strong and vigorous; stops fallcleans out dandruff, prevents gray hair and baldness.

SPECIAL NOTE.—If you have any hair or scalp trouble send a small lock of your hair to the Cranitonic Institute, 528 West Broadway, New York, state in your letter if you have itching scalp, fandruff or falling hair, when our physician will make a microscopical examination of the hair, send you a report upon its condition and prescribe curative treatment free of charge.

If you will enclose 10 cents in stamps or silver in your letter, to pay postage and packing, we will send you FREE a bottle of Cranitonic Hair and Scalp Food, the most exquisite French hair dressing ever manufactured Please say when writing that you saw this offer in GREEN'S FRUIT GROWER.

Please Mention Green's Fruit Grower.



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y fish, muskrat, or squirrel which res at the bait is surely caught. Perfectly safe for children, will not rust. One bait will catch from 20 to 30 fish. Will spring in any position; in sh ohio Farmer says: "The Eagle Claw is a very ingenious article. The best device for catching fish and game we ever saw. Safe, sure and convenient." No. i is for all ordinary fishing, the ladies' favorite. No. 2 is for general use, both large and small fish and game. We have sold thousands, and they have all given splendid satisfaction. Price, No. 1, by mall, 30 cts. each; No. 2, by mall. 50 cts. each; Price, per dozen, by express, No. 1, 52,25; No. 2, 53.50.

Price, No. 1, by mail, and GREEN'S FEUIT GROWER one year, 50c., No. 2, by mail, and GREEN'S

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APPLE TREES.

We have nearly one hundred choice varieties of apple trees. We also have a large supply of

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A CELEBRATED DWARF PEAR ORCHARD.

How the Trees are Handled.

MIGHTY DWARFS. The dwarf pear orchard owned by C. S. Mills, of Allegan Co., is celebrated throughout Michigan. Last fall I found Mr. Mills right in the midst of gathering the crop, so I saw the fruit at its best, and watched all the operations of picking, grading and packing. This fruit farm comprises 74 acres of rolling land, north from South Haven, Michigan, and one-third of a mile back from the lake. The soil is partly a clay loam and partly a sandy loam.

"How many pear trees have you, alto-gether?" I asked. "Close to 1,200-part of them four years old, and part 16 years old. The older trees I set out when the farm first came into my possession, and it was one of the best strokes of business I ever did."

"Are they all dwarfs?" "Yes, every one. I have no use for tandards myself; were I to begin again, should plant just the same way-dwarfs every time. Some people don't believe in them much, but we do."
"What varieties have you, and which

lo you prefer?"

"Duchess, Louise Bonne, Anjou and Howell. They are all good; but I rather prefer the Duchess for a market pearthey are so large and attractive. Anjou is also a fine variety. Louise Bonne bears well, and the pears, although not extra large, are of good quality and appearance; the tree itself, however, has the fault of being more liable to breakage at the joint than the other varieties. All dwarfs have their weakness, more or less-the union between quince stock and pear seems never to be a perfect one; but with the Duchess, planted deep, I have had but little loss

from this source. "How about Bartlett and Seckel?" "They are, according to my experience, no good as dwarfs; I would not plant such stock if it were given me. Come out and see the orchards."

A BEAUTIFUL SIGHT.

What a revelation those sturdy, sixteenyear-old trees were to me! Never have I een their equal. Great stocky fellows, with trunks like a man's thigh; short, thick branches; green, thrifty leaves. Nearly every tree looked just like the next one, as far as one could see down the long, straight rows: every tree was branched close to the ground, all were round, bushy, and of about the same height. Such uniformity is rare in a pear orchard—there were no gaps, and but few places where it had been necessary to fill in with younger

As for the fruit! Well, it took me just one minute to conclude that I had never seen a real live pear orchard before. Many of those trees were fairly covered with pears such as we fruit growers dream about, but seldom obtain-two, three and four bushels to the tree; in some instances, nearer five bushels. How the little trees held up such a load seemed something of problem-yet they did not appear to be bit overloaded. "But don't you thin the fruit at all?"

THINNING AND SPRAYING.

"Yes, indeed-and it's quite a job, too; out a very important one. If you had been here at thinning time, you would have concluded—from the quantity of pears taken off—that we had ruined the crop. We do this work when the fruit is about the size of a walnut, and after the natural dropping off is over with. No, we don't follow any particular rule—just take off all we dare and then pull off some more! ver, the ground will be fairly green with onds bear simply a number stamp. baby pears. Every year we do this, and it pays every time. To look at the trees lieve that they were ever thinned. Yet, part of it goes to private customers if you will notice, every pear has room enough properly to develop; the trees are n no danger of breaking down; the limbs carry their individual burdens easily, and each pear is large and saleable."

"Do you spray?" "Yes; every year. We cannot afford not to do so. We begin operations before growth starts in the spring, and continue it until late in the summer. No regular rules can be laid down, as every season is different; generally four sprayings are sufficient; some years when the late brood is necessary. We use the regular stock formulas as given by the experiment staions. As a result of this spraying, you will notice there is but little scabby or

wormy fruit in the orchard." "Do the slugs bother you much?" "In the young orchards, yes; as the trees get older, the slugs get less and less troudesome; for some unknown reason they seem to prefer the leaves of younger trees. Another queer thing I have noticed, is the

GOOD STOCK AND CARE. In response to further questioning, Mr. Mills outlined his methods of planting and

earing for his orchards: "Get good stock and set it deep—the joint should be several inches below the usual ground level. This point is important. Another equally important point is the kind of soil—dwarfs are no good on sand; they want a good, well-drained clay, or a clay loam. Set the trees 16½x16½ feet apart. I know that authorities claim 12x12 is ample, but my own experience has shown me that a rod is none too much after the trees have attained their size. Branch the trees low. Prune every year by cutting off three-quarters of the new growth; that may seem a good deal to take off, but I find that it pays, in the long run, to do it. Every new shoot must be thus shortened in, all over the tree; the aim being to produce a low, bushy, stocky tree, with strong, stubby stems and branches. More or less thinning out is also necessary; a tree like a paint brush won't do-neith will one with too few branches. A happy medium is not exactly easy to attain, but it's the thing to aim at. When pruning back, we are always careful to cut to an outside bud-never to one pointing inwards; it's just as easy to do it one way as the other when you get used to it, \$600. Retail price is only \$1, which places though it may seem harder at first. It's the pump within the reach of every farall a question of thinking while you work; a workman who can't use his brains and his hands together, has no business in a fruit orchard.

WORK AND FOOD.

"Plow up to the trees in the fall, and away from them in the spring; thus the ground is kept nearly level during the working season, and when cold weather comes, the ridging up assists drainage, and also helps protect the tree roots. For the first three years most any hoed or cultivated crop may be grown among the trees; after that, they should have all the ground to themselves—with regular harrowings up to about August 1st. At the last cultiva-tion, oats, Crimson clover, or some other green crop may be sown to hold the ground and plow under in the spring. One word as to plowing: do it either before the

trees blossom, or after; never work the ground when the trees are in blossom.

ground when the trees are in plosson.
"The manure question is one that every pear grower has his own notion about. Most growers believe that stable manure is bad for pear trees-that it causes the blight-that the trees must be kept back rather than pushed along. Such is not my idea. For 10 successive years these trees had a good warm coat of strawy manure applied in the fall or early winter. For the last six years they have had nothing. Blight has bothered us but little, in all this time. But the trees grew, and are still growing; what's more, they bore young, and are still bearing."
"But," I interrupted, "is it possible that

you have had regular crops of fine fruit without fertilizer of any kind during this last six years?" "That's it, exactly; I pushed the trees along for the first 10 years, and since then

they have had nothing to eat but air and cultivation. So far there has been no sign of insufficient plant food—the fruit is just as large as ever, and the growth is just as thrifty. Next year, however, I intend to apply a coating of some good commercial fertilizer."

THE OFF YEAR.

"Don't you have off years occasionally-

with the crop practically a failure?" "No. These trees have never missed crop since they came into bearing. They started in when three or four years old; at 10 years they averaged a bushel or more to the tree, and kept gaining every year. Of course some years have been better than others, but no year has been anything like a failure. Now let's go and see how the picking progresses."

I found the harvesting operation a very interesting one, for it showed actual results. Here is where one learns to appreciate the advantages of dwarf trees closely pruned. Hardly a pear anywhere but what could be easily reached from the third step of a ladder; and fully half of the crop could be picked from the ground. These little points particularly appeal to anyone who has had experience in church-steeple climbing in an orchard of standard varieties.

"But are the dwarfs long lived, and will they produce as much to the acre as

"Where I came from, in New York State, there are dwarf trees in a certain orchard that are now 35 years old-and they're still in thrifty condition. Just how much longer they will hold out, under proper treatment, is an open question, but believe they are good for many years yet. As to which bear the most to the acrestandards or dwarfs-I am not prepared to say, not having an orchard of the former for comparison. I have an idea, though, when you take into consideration the early bearing, close setting, and labor-saving qualities of dwarfs-that a long series of years would show them to come close to the standards in net profit."

HANDLING AND RESULTS.

Next, we investigated the packing opera tions. The fruit is picked in round peck baskets, then carefully poured into bushel baskets, and taken to the packing room. Here it is sorted by hand into firsts and seconds, and all imperfect specimens-(and there are not many on this farm)-thrown out. Of course, the fruit is picked before it colors, and is marketed while still in the same green state. Mr. Mills uses regular two and one-half bushel barrels for shipment, packing each grade by itself, and handling the pears as though they were eggs. The bottom (or head) of the barrel is faced with fruit laid in regular circles -much as apples are packed, except that the pears are placed side down. When the barrel is evenly full, the cover is forced I have yet to see the man who thins too into place by a screw press. The firsts are much. When this thinning operation is sent out under Mr. Mills's name; the sec-

"Who do you sell to, mostly?"
"Part of the crop goes to Chicago, by now, though, it is indeed difficult to be- boat, consigned to commission men there; various States. To-day, for instance, I am filling an order for a customer in Beloit, Wis. Some years I have opportunities to sell the entire crop for cash right in the orchard. One Chicago man offered me \$3.25 per barrel here for all my firsts; this occurred only the other day, but I could

not afford to accept." "How much do you realize per barrel-

usually?" "On an average, one year with another from \$3.50 to \$4.50 would represent some thing near the selling price. One season of slugs is unusually bad, a fifth spraying I got a check from a man in Illinoisstranger to me-saying that he had seen some of my pears the year before, and wanted me to ship him an even \$50 worth.

"Well, how many barrels did you send

him?" "Just nine: pears were up that year." Then Mr. Mills took me to see his orch ard of four-year-old dwarfs-as promising a lot of trees as a man needs to possess Another queer thing I have noticed, as than a man's head, and many of the trees partiality they show for one particular than a man's head, and many of the trees variety—the Louise Bonne. I never could had several dozen pears on—as a slight sample of what they intended to do later. -W. E. Andrews, in Rural New Yorker.

Farm Wagen only \$21.95.

In order to introduce their Low Metal Wheels with Wide Tires, the Empire Manufacturing Company, Quincy, Ill., have placed upon the market a Farmer's Handy Wagon, that is only 25 inches high, fitted with 24 and 30 inch wheels with 4-inch tire, and sold for only \$21.95.



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The Albany Wonder Spray Pump has won its way to the very front. Agents claim it sells on sight and as the con pany allow liberal commissions, agents are making \$2, \$3 and even \$5 a day selling them. One agent last season made over \$600. Retail price is only \$1, which places mer, gardener and fruit grower. Write to C. E. Morrison, Secretary, Box 142, Albany, N. Y., for circulars and full in-



A Martyr to Conscience.

Moralists who seek to draw an edifying lesson from the fate of "Judas Iscariot," the "leading" sheep in the Armour yards, will find many difficulties in their way. The post-mortem evidence all seems to point to the fact that this decoy sheep was not killed for his sins, but for his refusal to sin any more. So long as he led his arise from geological conditions being thousands of confiding fellow-sheep to their mostly due to the climate prevailing at the death he waxed fat and flourished with impunity. But after eight years of this life salts enough to make the soil saline or alkaline if they are properly concentrated kaline if they are properly concentrated. had a moral awakening. He realized that he was in a base business and that he was old enough to know better. Last week here and there where a broad shelf of here and there where a broad shelf of "Judas" decided to betray no more of his "Judas" decided to betray no more of his kind into the hands of the butcher, and rain and snow. If now a little thread of because of that virtuous determination he was himself slaughtered. Cynics may say it mostly evaporates you will find one day that the sudden reform of "Judas" was what looks like a heap of rather dirty lookdue to laziness or to the stiffening of his ing popped corn, but if you taste it you aged legs from long traveling in the ways find it is alum. Brought out of the shale of deceit, and that he deserved his fate, particle after particle it has slowly accubut there will be many others who will prefer to believe that he died a martyr to conscience. For these the only consolation will be the reflection that a good sheep dead is better than a bad sheep living-a moral dictum not universally accepted by black sheep.-Chicago Tribune.

How a Woman Paid Her Debts.

Dish Washer business for it. In the past five weeks I have made over \$500, and I am so thankful that I feel like telling everybody, so that they can be benefited by my experience. Anybody can sell Dish Washers, because everybody wants one, especially when it can be got so cheap. You can wash and dry the dishes in two minutes. I believe that in two years from now every family will have one. You can get full particulars and hundreds of testimonials by addressing the Iron City Dish Washer Co., 216 Station A, Pittsburg, Pa., and you can't help but make money in the business. I believe that I can clear over \$5,000 the coming year, and I am not going to let such an opportunity pass without improvement. We can't expect to succeed without trying. Mrs. B.

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N. Y.

Why the Far West has Alkaline Soil.

The presence of various salts in the soil ometimes in such quantities as to hinder the growth of most plants and making the time. The rocks of any region contain water oozes out of the shale so scanty that mulated. It would be idle to dig into the cliff in search of a bed of alum; the rock contains only a minute quantity at any one spot. Take away the sheltering stone and the rain would soon remove the alum and keep it from forming afterward and a quick running spring would also keep it dissolved. What goes on in these little

places under the stones is applied on a grand scale if rainfall grows less and evaporation increases. Yesterday, in a geole ical sense, the Great Salt Lake of Utah was 1,500 feet deeper than it is to-day with an outlet into the Columbia River, the old shore lines being plainly visible along the bases of the mountains according to the U. S. Geological Survey. We may be sure it was fresh at that time. So a heavy rainfall and a copious drainage into the ocean makes fresh soil and water while aridity concentrates soda, potash, lime, etc., upor the soil or in the lakes. Still there is a great difference in the content of alkali in different places. In Wyoming they say a steep side hill where snow banks gather and melt will have little or no alkali while the bottom of a pond where water dries up every summer may be over half carbonate or sulphate or chloride soda, sulphate of lime, magnesia, etc. Including the saline lands of Mexico and Canada our continent has a fair supply, but some countries have more than we. The Bible speaks of "a salt land not inhabited" and Asia has an immense area which extends into Eastern Europe, while Africa and Australia are well provided for.

Frost Preventives.

I have read with interest the published reports of a recent meeting of the State Horticultural Society, at which the subject of frost prevention was discussed. Many of the methods suggested at that time are undoubtedly among the most valuable for this purpose. Especially is that of Mr. Ditzler to be commended. How-ever, I am confident that the explanation given by Mr. La Rue, as to how these methods protect, is incomplete. It seems well established that the greatest protection comes from the condensation of the vapor which is given off by the wet smudge material used, rather than from shielding the earth and thus preventing the radiation of heat. The use of wet straw. or other material in smudges has been found effective in all cases, while those made by burning coal tar, or other dry material, are usually ineffective. The reason for this is because vapor in condensing adds a vast amount of heat to the air. The condensation of vapor sufficient to form fifty gallons of water would give off enough heat to raise the temperature ten degree in a layer of more than fifty feet deep and extending over an acre. If this condensation can be brought about near the surface much greater benefit will result than can possibly be obtained from any dry smudge, and Mr. Ditzler's device, by which an intense fire is obtained by means of a blast and the vapor forced horizontally by this means and also to condense under the trees, should prove the most efficient

I have taken the liberty of thus addressing you on this subject, since I realize that this is an important question, and it is very desirable that the best means possible be used in protection in order that the orchardists may not become discouraged in the belief that protection is not possible. I have sent to you to-day a few copies of a pamphlet recently written by me on this subject, and will take pleasure in supplying any other members of the board, or any of your friends whom you may suggest.—W. H. Hammon, forecast official, United States Weather Bureau, in California Fruit Grower.

Orchard and Garden.

In the Farmer's Guide we find a letter from a man in Indiana who says he began growing strawberries about a quarter of a century ago. When harvest came he had eight quarts to sell. He took them in a spring wagon to Middletown, about eight miles, canvassed the town from center to outskirts, and could not sell a berry. Went five miles out of the way going home to visit another village, and there he suc ceeded in selling one quart to a personal friend for ten cents, but he had to take the rest home.

He kept on growing strawberries, and when people came to see them if they would not buy he gave them some to take home. Now he lives three miles from another village of 4,000 to 5,000 inhabitants, and with three other growers near him there is seldom a glut of berries in that market. He also has three acres of raspberries and has never been able to supply the demand. He says: "It has all been brought about by educating the people to eat more berries and not so much pork." We commend this statement to Seekonk correspondent, who fails to find a market for his blackcap raspberries. The people are more easily educated now than they were twenty-five years ago, and we hope it will not take that long to educate the people of Providence into appreciating the merits of the black raspberry.-American Cultivator.

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Purple Leaved Plum.

Among all the purple leaved trees and shrubs, and the list is very large, there is none better than the purple leaved plum, or Prunus Pissardi. a purple leaved plant in cultivation here but that loses its deep color more or less as the season advances, aside from this plum. This new, small-sized tree is of a deep, reddish purple, and this color it holds until the leaves fall in Autumn. It is a variety of the Myrobolan plum, a sort well known for its bush-like habit of growth, and the purple variety retains this desirable character. Standing among ordinary trees, it is in striking contrast to them, and can be distinguished a long way off. Trees cost only 25 cents each.—Practical Farmer.

A Clinton druggist got a note the other day asking for "enuff eppy cack to throw up a baby four months old," relates the Clinton Democrat. Another customer wrote for "something for a sore baby's eyes" and another one asked for "some thing for a swelled woman's foot."

Two Pennsylvania farmers have been at war for eight years over ten trees worth \$19. The case is not yet settled, but the costs already amount to \$1,148.75, and in addition there are the fees of five lawyers to be reckoned.



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EDUCATION ADVANCING IN SPITE OF IGNORANCE. Is the subject of the above illustration from the Paris Exposition. One line

which education is advancing is in buying plants, vines and trees direct of the ducer, (the nurseryman who grows them) in place of buying through agents and dlemen, thus paying double prices.

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Spraying Mixtures.

SPRAYING AND SPRAY MIX-

Important Points not Fully Explained.

I find that the common people do not understand much about this matter. Take Bordeaux Mixture for instance; it makes all the difference between free working of the nozzle, or constant filling up and clogging, simply by the way in which the lime is slacked and the ingredients put together. It can be done so as to have the mixture a thick, curdly mass, or it can be done so as to pass the nozzle almost as freely as water. It is very annoying to have to e continually clearing nozzles. "Bordeaux Mixture: Copper sulphate, six pounds; quick lime, four pounds; water, 40 to 50 gallons. Dissolve the copper sulphate in four gallons of water. Slake the lime in an equal amount of water, then mix the two, and add enough water to make forty

The above is copied from a very popular bulletin, but I am sure that any one who follows it in making his mixture will soon make up his mind that spraying is a nasty job, and will not pay. Let me give a little more explicit directions, and very sprayer will be thankful for them. Use Good Lime.-In the first place, one should be sure to get the purest white lime. This is a limestone country, and our best lime can be bought for about 15 cents per bushel; but I would rather pay \$1 a bushel for the best Norwalk white lime than take this as a gift. The Norwalk lime, if properly used, will be almost as constant in solution as milk. It is also necessary to get the lime fresh and unslacked, and I find that, if slacked in boiling water, plenty of it, and well stirred while slaking, it will be much finer, and stay in suspension very much longer. I also find that, if the lime and copper sulphate are put together when strong, they form a curdly mass which can never be reduced so as to work satisfactorily.

A Stock Solution .- When spraying. I make a stock solution of copper sulphate, one or two pounds to the gallon. I then slake the lime in a barrel so as to have it of the consistency of thick cream; this should be kept covered so as to keep it perfectly clean. Now, instead of putting these stock solutions together in the proper proportions in the spray tank, and adding water, better fill the tank half or more full of water, and dip the needed amount of sulphate solution into this, stirring well before the lime is added. Then add plenty of water to the lime solution, and stir until

not settle in a long time. By constantly adding more water to the lime solution, it can be nearly all dipped ff, and nothing taken that will in the least obstruct the nozzle. When the operator thinks he has lime enough, and the mix-ture is well stirred, it should be tested with the ferrocyanide of potassium test, and lime added so long as it shows any color. (This test is made by adding a few drops of a 20-per cent. solution, ferrocyanide of potassium. So long as dissolved copper exists in the mixture the addition of this chemical causes a reddish brown precipino change takes place when the reagent is added.—Eds.) It is well to add a gallon or two of milk of lime beyond what is necessary to neutralize the sulphate; especially should this be done if Paris green is used

with the mixture. green to London purple, because it is more uniform in strength, but I like the arsenite of lead better than either. It costs no more, will stay in suspension better, and is fully as destructive to insects; then there is no danger of injuring the foliage by using it. To make this mixture, dissolve eleven ounces acetate of lead (common sugar of lead) in four quarts of water, also dissolve four ounces of arsenate of soda in two quarts of water, using wooden, glass or stone ware to hold these solutions. When dissolved, pour them, one at a time, nto 40 or more gallons of water, and add nough to make 100 or 150 gallons, according to the purpose for which it is to be used. If for canker worms, not more than 100 should be used. The same strength is right for potatoes.-J. S. Woodward in Rural New Yorker.

Timely Work with the Spray Pump.

Early spring spraying is necessary to control most forms of fungous diseases and for a few insects like the bud moth, leaf folder and San Jose scale. The loss resulting from the attacks of such fungi as apple scab, bitter rot, spot disease of the cherry, downy and powdery mildew of the grape and a host of other disease amounts to millions of dollars every year. The most common fungicides are Bordeaux mixture, copper sulphate and the ammoniacal solution of copper carbonate. Copper sulphate should never be used after the buds have started, but always when the trees are dormant. Dissolve one pound in fifteen gallons of water and spray for the apple scab, cherry and plum rot, pear leaf spot and anthracnose of berry bushes. For peach trees dilute to twenty-five gallons.

The Bordeaux mixture is coming to be used more generally each year. It is best made by dissolving six pounds of copper sulphate in six gallons of water and then diluting to twenty-five gallons. In another vessel slake slowly four pounds of fresh lons, pouring the two mixtures together when wanted to spray. For all grape troubles and for all fungous diseases after the buds have started this preparation is best. Add one-quarter of a pound of Paris green to fifty gallons of Bordeaux mixture for eating insects, and make the first spraying of these two. Where the apple scab is bad make the first treatment with spray with Bordeaux mixture and Paris green, and again as soon as the flowers at intervals of two or three weeks.

periments have shown that it can be controlled with a 20 per cent. mixture of kerosene and water. This should always the large trees I tie the hose to a large adding three pints of ammonia and then be put on during a sunshiny day to allow kerosene to evaporate quickly, otherwise the plant may be injured. A 25 per cent. mixture may be used before the buds start into growth. Crude petroleum should be tried carefully. It is more lasting than kerosene, and more penetrating in its ef-

Copper sulphate solution.-A solution of copper sulphate has been recommended as a substitute for Bordeaux mixture to be used under certain conditions. This fungicide is, however, of doubtful value since it is liable to be washed off of the trees by the first rain and when used during the growing season even a very weak solution will injure the foliage of some kinds of trees. A solution for use on dormant trees may be made of the following strength:

given for the use of the solution on the different kinds of trees after growth has started in the spring.

Paris green dissolved in ammonia,—Son

fruit growers make a practice of dissolving that the poison will be more effectual in a liquid state. This might work very well be added to the Paris green solution in order that injury to the foliage may be pre-

When lime sufficient to neutralize the corrosive action of the poison has been added, the Paris green is at once precipitated so that it is in a form similar to what it was before it was dissolved. Thus it will be seen that nothing is gained by the operation, but on the other hand a considerable expense has been incurred since it takes about a pint of strong ammonia to dissolve a pound of Paris green.

London purple,—This poison is a by product that is obtained in the manufac ture of certain dyestuffs, the poisonous principle being arsenite of lime. From the fact that London purple is a by-product the amount of poison that it contains is variable, therefore it cannot always be depended on to produce desired results. This is the only reason that it is not generally recommended. It should be applied somewhat stronger than Paris green, using a pound to from 100 to 150 gallons of water.

Green arsenite.-One serious drawback to the use of Paris green is that it settles very rapidly when mixed with water and unless the pump is provided with the best of agitators it is difficult to maintain a spray in which the amount of the poison is constant. Green arsenite is superior to Paris green in this respect as it is in the form of a very fine powder which stays in suspension much longer than Paris green On comparing mixtures of the same strength it was found that while Paris green settled to the bottom of the vessel in about five minutes, the green arsenite remained in suspension over two hours. It is used in the same proportions as Paris green, one pound to from 150 to 200 gal ons of water, using lime to prevent injury to foliage or combined with the same amount of Bordeaux mixture. Green arsen ite costs about fifteen cents per pound and may be obtained from the Adler Color and Chemical Company, New York, and prob-

ably from other dealers. Arsenite of lime.-The demand for a cheaper poison than Paris green has led to the use of white arsenic as a substitute Arsenic must be used in combination with like thin milk. If let stand an instant, the heavy particles will subside, and the thin lime milk can be dipped into the tank of dilute solution; if well stirred, it will seen then that white arsenic and water or white arsenic dissolved in sal soda and water without lime are unsafe combinations to use. Arsenite of lime is a safe form in which to use or not dissolve in water. There are two methods of preparing arsenite of lime as follows:

White arsenic . . . 1 pound Fresh slaked lime . . 2 pounds Water . . . 2 gallons Boil for twenty minutes then dilute with 400 gallons of water. This formula is not considered as reliable as the one given below since it is difficult to tell when all of the arsenic is dissolved and combined with tate to appear. Lime should be added till the lime and if prepared in large quantities the arsenite of lime will gradually settle into a compact mass that will not readily mix with water. The following formula is much more reliable:

Boil until the arsenic is all dissolved which will take about fifteen minutes. Replace the water that has been lost in boiling as otherwise some of the material will crystallize upon cooling; then place in an earthen vessel where it can be kept as a stock solution. One pint of this stock is equivalent to four ounces of Paris green and is used in the same way; that is, one pint of the stock, two pounds of fresh slaked lime and forty-five gallons of water, or one pint of the stock to forty-five gal-

lons of Bordeaux mixture. It is very important that the vessels that are used in making or storing these poisons be plainly labeled and never used for any other purpose.-From Geneva Experiment Station Bulletin, No. 121.

How and When to Spray.

About twelve years ago was the first experience I had in the business and I have been experimenting somewhat each year since. Some things I have learned about it and there are some still to learn. First, a good outfit is necessary. I am using a Field force pump of strong power, with twenty feet of hose for large trees, with a nozzle that breaks the mixture into the finest spray, covering the leaves well but never so they will drip. The body and large limbs I spray until it runs down them. Twice spraying I find will do much towards saving a crop of apples if done about the right time, first time after the blossoms have all fallen, the next within

In preparing the spray I now use five pounds of vitrol, five pounds of lime, two and one-half ounces of Paris green or half that amount of white arsenic. The vitriol I dissolve in a brass kettle over a fire, the lime I slack and let stand until settled, then dip off and fill again, repeating this until I get the most of it clear of coarse sediment that is likely to clog the sprayer. I pour boiling water on the Paris green, stir well, then fill the barrel part full of water, add the vitriol, lime and green. Then fill the barrel, fifty gallons in all. As soon as it is mixed is the very best time to use it. This mixture I find effective on the apple, pear, cherry and most kinds of the plums; some of the Japs can't stand it.

When I first began the business I some-times felt it hardly paid, but now it seems indispensable almost in getting a crop of fruit. The cherry should be sprayed as soon as the blossoms drop; one spraying will answer on this fruit. It is best to do Give one or two more applications ervals of two or three weeks.

shining, with prospects of clear weather for a day or two and not much wind. All mental stage, but several years' ex-

top can be reached. In spraying the peach for curl leaf, I do of carbonate of ammonia in the sam fects, but is death to the scale.—American not feel so sure about the benefits to be tity of water separately. Mix and dilute griculturist.

| derived from it. The spraying should be to 50 gallons, applying when mixed. The the buds first open, the young leaves are very tender, and if there should be a cold air with blighting wind, the edge of the leaf will become seared and hardened, thus checking its growth, while the remainder of the leaf will expand, causing the irregular shape. The spring of 1895 was mild through the latter part of March and all curl leaf that spring. One or two other seasons I remember when all varieties escaped injury .-- W. S. Chase.

Beginning Spraying Early.

The importance of early spraying is not as fully understood as it should be. There are many reasons for spraying before the all the Paris green that they use thinking foliage appears and before there is too great a swelling of the buds. The spray calendar given in the Weekly Sun, March if it were not for the fact that lime must 11, 1899, many subscribers have saved as a reference guide. A writer in the Philadelphia Record gives the following timely suggestions and informaton regarding the importance of early spraying:

Spraying is essential for fruits and some regetables, and it is most effectual when it is done early in the season. The sooner the work begins the better. Sprayers are now made of many different designs and solutions can be carried in barrels on wheels or on the back in a contrivance similar to a knapsack. Spraying is intended not only to prevent diseases of fruits and vegetables and to protect the trees and plants in that respect, but it is used also as a safeguard against insects. A fungicide is a solution used for destroying parasitic fungi, such as rot, mildew blight, rust, etc. An insecticide is used for the destruction of insects. Of the wellknown solutions that have been tested and found efficacious may be mentioned the a spade or breaking plow, after which Bordeaux mixture. Blue vitriol (sulphate the remaining plants in the row should of copper) is the principal substance used be thinned by cutting out about half of in its composition. Dissolve six pounds in them with the hoe. The ground between four gallons of hot water and then dilute the rows should then be thoroughly cultito 16 gallons. Slake four pounds of lime vated, after which the runners should be in six gallons of water in a separate ves-sel, and when cool strain it into the cop-the ground is dry at this period, it should per solution. Use wooden vessels and apply the solution immediately after mixing. Another copper solution, known as "Earl

stiff pole like a fish pole, with the nozzle diluting to 50 gallons, applying as soon as close to the end, drive under the tree, and if necessary, set a step ladder against the made by using carbonate of copper instead body of the tree to reach the top. In this of the sulphate, and carbonate of ammon-way the outside and upper part of the ia. Dissolve three ounces of carbonate of copper in a gallon of water and a pound

done before the buds open, but the trouble above are "fungicides." For insects the occurs after the leaves start. Weather conditions are the cause of the trouble one pound of hard soap in half a gallon more than anything else, I think. When of boiling water, and when the soap is dissolved remove the boiling water from the fire and add half a gallon of kerosene, churning briskly with the force pump of the sprayer for 15 minutes until the mix ture has the appearance of thick cream Kerosene will not mix with water, but will form an emulsion with the soap. Now add slowly, stirring well, or mixing with the balance of the spring. There was no the sprayer, from ten to fifteen gallons of water, according to the strength desired. It will keep any length of time and destroys insects on trees and plants as well as fleas, lice, etc., and does not injure plants like unadulterated kerosene, being also much cheaper. A gill of spirits of turpentine will improve the emulsion if added at the time of adding the kerosene. An efficient sprayer should throw a fine mist-like spray, and the spray should spread over a large surface, so as to enable one to do the work quickly and thoroughly. Crude petroleum has also been discovered to be excellent if used in January.

Summer Treatment of Strawberries.

After the strawberry crop has been harvested, if the bed is to be retained for another crop, the ground should be gone over with the mowing machine and everything cut off pretty close to the ground The cut off material should then be dried and burned. It may be raked between the rows for burning, or if abundant, it had better be raked off the ground, but the burning should not be dispensed with as is the best known preventive for blight and leaf-rollers-two of the worst enemies of the strawberry grower.

The rows should then be narrowed to about eight inches in width by cutting off a part of the plants from each side with be irrigated if possible.—E. S. Goff, in Bulletin of Experiment Station, Madison, This is Our Premium Watch A BEAUTIFUL GOLD FILLED WATCH

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SPRAY CALENDAR.

PREPARED BY W. J. GREEN, A. D. SELBY AND F. M. WEBSTER, OF OHIO AGRICULTURAL EXPERIMENT STATION.

This Calendar is designed to cover the needs of Orchardists. It was first prepared at the request of the Ohio State Horticultural Society. Insecticides and Fungicides may often be combined. Where Bordeaux mixture is used for fungous diseases this practice is recommended. Spraying young orchards with Bordeaux mixture from time of

WHAT TO SPRAY.	FOR WHAT TO SPRAY.	WITH WHAT TO SPRAY.	WHEN TO DO SPRAYING.				REMARKS AND
			First Spraying.	Second Spraying.	Third Spraying.	Fourth Spraying.	CAUTIONS.
Apple	Bud moth	Arsenites in Bordeau Arsenites alone, 7 or	S WILL HEST YOUR	. In 1 week if worm	s Same as second	A % 464 35% GAD	White skinned apple are injured be spraying after 3rd.
	Codlin moth san Jose scale	Whale oil soap solu	As soon as leaves dro	one with the little to a	These coincide with	3d and 4th for seab.	One and one-half
And a train		Kerosene emulsion Bordeaux I and II	When trees are not in	In fall		processing the second s	water. Don't use emulsion if this leaf.
Cherry		Kerosene emulsion	On first appearance o	of and cow, car -	on fruit	or 3	3 when fruit is large.
	Cherry slug	Arsenites in Bord. II.	the state of the s	Repeat if slugs re main As blossoms dry up		rean's Fru	Difficult to reac aphis. Air slaked lime ma be used.
		. Whale oil soap solu-	In fall as with the	in II.	One week later in II.	100	Avoid strong solution
Current vorcerore	San Jose scale	Kerosene emulsion Whale oil soap solu- tion		Early June if necessary In spring as with apple		Manage 2	
	Worm	White hollohore	Whon worms first an	A STATE OF THE PARTY OF THE PAR	Repeat as second Potass. sulfid 2 weeks	VINERAL M	CATA TOWNS TOWNS MAY NOT THE PROPERTY OF THE P
Gooseberry	W	White hellebore	As on currents	Just before blossom-	later	Anima (1881)	Bord. coats fruit i used for 3rd.
Grape		13. 3	La deservation of the	ditions out and	set	10 days later, Bor-	Don't spray afte
		Bordeaux I			Just after fruit has	10 days later, Bor-	Covered by spraying for anthracuose of rot.
Peach	Leaf hopper Leaf curi	Kerosene emulsion Bordeaux I and II or	Before young can fly. As buds are swelling,	Mystym Athi a pri		deaux	Follow by 2 or sprayings with am cop. carb. Don's spray after fruit is
			sol	Just after cal. drops Bord, II.	Later not required	a Maria Chair.	half grown. Second even probably
110 21		Whale oil soap solu-	and the state of t	company on the company	Two weeks later		Cover fruit well. Use only one-half usual amount of
authorized a		tion	in fall	Just before fol. starts in spring			polaon-
Pear	Canker worm	Arsenites in Bord. I Arsenites in Bord. I Whale oil soap solu-	After blossoms fall	7 to 10 days later		one seems to mey may ton. mains will re-	to means with the
		na spagnini est	drop in fall	Just before fol. starts in spring			One and one-half to
Plum	G	Arsenites in Bord. I Bordeaux I	With starting of buds When plants are 6 In.		3 weeks later, if needed 5 days later		solved in 1 gal, water. Jar and gather stung
otato	Late blight	Bordeaux I	As for early blight in all When beetles appear.	and a fact the same and	Two weeks later	I'wo weeks later.	glums in addition.
	Blister beetle Colorado beetle	Bord. I	When beetles or young appear	As for first	As for first and sec-	in similar	Subscribers of Character who was desired to the Articles of th
ulace	Leaf spot	Bordeaux I	When beetles appear As buds are swelling.	When leaves are half	Two weeks later	in a section of the s	Second should come
aspberry and	Anthracnose	Bordeaux I and II I	Before leaves open use I	II on young canes 6 inches high	nd Repeat second one week later		after blossoms drop. Keep spray from leaves on bearing
aspberry and Blackberry.	Leaf spot	Bordeaux I	As buds are swelling. Before blossoms open. Before leaves open	When leaves are half grown After blossoms drop II on young canes 6 inches high	Two weeks after sec- ond	I'wo weeks later	after blossoms Keep spray

FUNGICIDES.

Bordeaux Mixture I. Copper sulfate (blue vitriol) 4 pounds. Quicklime (not air slaked) 4 pounds. Water, to make 50 gallons.

Water, to make 50 gallons.

Dissolve the copper sulfate in about two gallons of hot water, contained in a wooden vessel, by stirring, or even better, by suspending the sulfate contained in a cheese cloth sack, in a large bucketful of cold water. With the cold water and cheese cloth bag, a longer time is required. Pour the sulfate solution into the barrel or tank used for spraying, and fill one-third to one-half full of water. Slake the lime by addition of a small quantity of water, and when slaked cover freely with water and stir. Pour the milk of lime thus made into the copper sulfate, straining it through a brass wire strainer of about 30 meshes to the inch. Pour more water over the remaining lime, stir and pour into the other; repeat this operation until all the lime but stone lumps or sand is taken up in the milk of lime. Now add water to make 50 gallons in the tank. After thorough agitation the mixture is ready to apply. The mixture must be made fresh before using, and any left over for a time, should be thrown out or fresh lime added.

Bordeaux Mixture II. Copper sulfate, 2 pounds. Quicklime, 2 pounds. Water to make 50 gallons.

STOCK SOLUTION.

may be made up and permitted to stand indefinitely in a covered barrel if no lime is added. Such a solution is known as a stock solution and two or four gallons of this stock solution according to the strength desired, are taken for each 50 gallons of mixture to be made. For extensive spraying, a long trough or box of uniform width may be used in which to slake and keep the lime. The quick lime is weighed out according to the amount needed immediately, placed in the trough and slaked with a small quantity of water. The whole is evenly spread and covered as a putty, with water to exclude the air. This putty may be removed in calculated portions, placed in a tub and treated like the freshly slaked lime. By means of stock solution of copper surfate and the lime in putty state, much valuable time is saved in filling the barrels or tanks used in spraying.

Ammoniacal Solution of Copper Carbonate. Copper carbonate, 6 ounces. Ammonia, about 3 pints. Water, 50 gallons.

Water, 50 gallons.

Dissolve the copper carbonate in the ammonia and add the water.

Caution: Use no more ammonia than is required to dissolve the copper carbonate. Ammonia is variable in strength, and the amount required must be tested in practice. To make copper carbonate: Dissolve 10 pounds copper sulfate (blue vitrio) in 10 gallons of water, also 12 pounds carbonate of soda in same quantity of water. When cool, mix the two solutions slowly, stirring well. Allow the mixture to stand twelve hours and settle, after which pour off the liquid. Add the same quantity of water as before, stir and allow to stand the same length of time. Repeat the operation again, after which large carbonate.

Copper Sulfate Solution. Copper sulfate, 4 pounds. Water, to make 50 gallons. Dissolve the sulfate as directed for Bordeaux I.
Caution: This solution will injure foliage.
It can be used only before the buds open.

Potassium Sulfid Solution.

Potassium sulfid (liver of sulfur) 1 ounce.

Water, 3 to 4 gallons. This solution will not remain unchanged. The potassium sulfid must be kept in a well stoppered bottle.

> INSECTICIDES. Kerosene Emulsion.

Rerosene Emulsion.

Dissolve one-half pound hard soap in one gallon of water (preferably soft water) and while still boiling hot, remove from fire and add two gallons of kerosene. Stir the mixture violentity by driving it through a force pump back into the vessel, until it becomes a creamy mass that will not separate. This requires usually from five to ten minutes. The emulsion is then ready to be diluted with water and applied. For the common scale insects and hard bodied insects like the chirch bug, use 1 part emulsion to 8 or 10 parts water. For soft bodied insects (plant like, etc.), use 1 part emulsion to 15 to 20 parts water.

Kerosene emulsion kills by contact and therefore the application should be very thorough. It may be used against a great many different pests, but is especially valuable for destroying those with sucking mouth-parts, for they cannot be killed with a resultance.

Paris Green.

In combination with Bordeaux mixture Paris green may be used at the rate of 1 pound to 175 to 200 gallons.

When Bordeaux mixture is unnecessary, the Paris green may be used at the same rate, but 2 or 3 pounds of freshly staked lime must be added to prevent burning of the foliage. Keep the mixture well stirred so that the polson will be distributed evenly. In cases where successive sprayings are necessary, it is important to consider the accumulation of poison and use a slightly weaker mixture unless sufficient rain has failen to wash off the poison thoroughly.

Iondon Purple.

If desirable London purple may be substituted for Paris green, but it has the disadvantage of being somewhat variable in composition and contains more soluble acid. For that reason it must be used somewhat weaker, or else an abundance of lime provided, so as to prevent burning of the foliage. It has the advantage of not settling as readily as Paris green.

Whale Off Soap Solut



NUR AGENTS RIDE

VAN DEMAN PAPERS.

Up To Date, Spraying.

Written for Gree 1's Fruit Grower by our Regular Contril utor, Prof. H. E. Van Demak. Late United States Pomologist.

It has now been about fifteen years since spraying trees and vines for the purpose of preventing the ravages of insects and fungus diseases was 'generally introduced

The notato beetle was the cause of the general introduction of spraying for insects. A little had been done before with hellehore in killing current worms, but when the notato beetle had traveled from its native home in Colorado, where it fed on wild plants, to the fresh potato fields of the Eastern States, eating everything before it, it became a serious matter as to what could be done to destroy it. Paris green was the first effective remedy found which was not long before 1870, and no one seems to know who first used it for this purpose. In 1872 La Baron of Illinois suggested it for the spring canker-worm on apple trees. In 1878 it was suggested by J. S. Woodward, of New York, as a means of fighting this pest in Niagara County, and the discovery was made that it had also killed a large part of the codlinmoth in the fruit. This was a new reve

The use of sulphate of copper as a fungicide was first begun near Bordeaux, France, not long previous to 1885, by the merest accident. A vineyardist was annoyed by persons taking grapes beside a highway and it occurred to him that a mixture of lime and blue vitriol would have a poisonous or disagreeable look if applied to the fruit; so he made some and sprinkled the fruit and accidentally the foliage, as well. It was noticed that there was little disease on the vines so treated. This led to further trial, with satisfactory results, and finally to the general adoption of the method and to various improvements and additions to it.

Kerosene was used as early as 1865 to destroy scale insects on orange trees and other species that were grown in conserva-It was first applied by dipping a feather in the oil and then wiping it over the infested parts. It was found to be a deadly poison to plant life as well as to insects, except by the most judicious use. Emulsions of it were next prepared, soap tisfactory results, where insects were to be killed which live by sucking their food through a beak instead of eating with

Thus it was that the use of arsenites of various kinds, copper sulphate and kerosene came into use as essentials in the practice of modern horticulture.

The use of these weapons of the fruit grower and farmer against their insect and fungus enemies has grown to wonderful proportions. The inventors and manufacturers of machinery for applying the various mixtures have kept fully up with the discoveries of the scientists and the reasonable demands of the people. We now have within our reach the means of successfully combatting almost every insect and fungus disease that preys upon our crops. If we do not use them we are wilfully negligent, and usually have to pay the penalty. And, if we do not understan and practice the cheapest and best methods of spraying it is our own fault also.

PARIS GREEN IS OUT OF DATE.

The first poison containing arsenic that was used for killing insects was Paris green. It was originally made and sold for the purpose of making a green paint. The crystals do not dissolve in water but are held in suspension or mixed with it, and being heavier than water they soon settle to the bottom. This necessitates constant stirring, or the poison will soon be about all at the bottom of the liquid and one part too strong and will injure the foliage. while the other is too weak and will do little or no good. The greener looking the dry Paris green is the larger are the crystals and the less its value as an insectpide; because it requires just that much more to properly poison the water. This led to the use of London purple, another and cheaper compound containing arsenic, but it proved more injurious to foliage than Paris green. Green arsenoid is a less lustrous green preparation of arsenic, is a finer powder and will stay in suspension longer than Paris green. It is therefore a cheaper insecticide. Paragrene is another compound of about the same character and, although, not equal to green arsenoid it is a good insecticide. Another of the cheaper, poisonous preparations is made an hour in lime water. It is effective, cheap and safe, but it has the disadvantage of settling rather quickly. WHITE ARSENIC AND SAL SODA

The best of all arsenical poisons, and one that should supersede all others for insects that may be killed by eating was discov ered by Professor Kedzie of Michigan. It is made by dissolving together white ar-senic and sal soda. It is the up-to-date mixture for this class of insects. There nothing difficult about making or using It is cheaper than any other kind and s more effective. The materials can be ought at any village drug store. Nor is

it patented. This is the way to make it.

Procure one pound of powdered white
arsenic and four pounds of common lump sal soda. The powdered sal soda contains more water than that which is in large, lump crystals. Put them both in any pot, add one gailon of hot water and boil for ten or fifteen minutes. This completely lissolves the two, and forms a clear liquid which has no sediment in the bottom. Put this in a jug, label it POISON in the manner and lock it up securely,

where there is no danger of any one get-ting at it by mistake.

The cost of this mixture is about twenty cents. The arsenic should not cost over 15 cents, and it may be had in large quantities for less than 10 cents per pound. The sal soda is usually worth about one cent per pound, but we will make a liberal allowance and estimate the cost of both ingredients at 25 cents. This is equal in killing power to two pounds of the best Paris green and costs less than haif as much. Some who have tested them in comparison say that the white arsenic and sal soda mixture is worth four times as much, dollar for dollar. It is certain that the one gallon will poison ten forty-gallon barrels of water sufficiently to kill all insects that may be induced to eat it. Nor will it injure the foliage if lime is used at the rate of one pound per barrel of water. The lime will cost about half a cent more, which brings the entire cost, exclusive of a little labor, to about three cents per barrel. Certainly, this is cheap enough.

When the time has come to spray take from the jug a little less than a pint of the arsenical mixture for each forty-gallon barrel of water or one pint for a fifty-gallon barrel. When it is well stirred it is ready for the lime water. This may be made in advance also, letting the lime thoroughly slake and then put on enough water to make milk of lime of it, or thoroughly saturated lime water. The coarse particles will all settle at the bottom, so there will be nothing to obstruct the flow of the mixture in spraying. Dip off one-tenth of the lime water for each barrel of poisone water and when the two are mixed all is ready for applying. The lime counteracts the caustic properties of the arsenic and the white sediment on the foliage shows where the spraying has or has not been well done.

MODERN BORDEAUX MIXTURE. We are constantly learning something

new about our work, and one of the useful things is how to make a Bordeaux mixture that will not settle quickly or clog in the spraying machines. There is much trouble in these respects by the old methods of mixing the chemicals in concentrate solutions instead of in diluted forms.

Whether there is much or little spraying to be done, it is best to prepare, in advance, stock solutions of lime and sulphate of copper, these being the two ingredients used in very dilute form in water to make Bordeaux mixture.

If much is to be used, sink a barrel nearly to its top in the ground. In this put a bushel of fresh lime and cover it with water. As it slakes add more water and stir to the bottom, until there is a mass of paste. Keep this covered with water and it will keep indefinitely and always be ready for use.

In another barrel with wooden or copper hoops (never of iron, which will corrode). put as many gallons of water as may be desired and for each gallon put in two pounds of sulphate of copper. Tie this in a coarse sack and hang it just under the surface of the water, so the water will all be saturated with the chemical. In a small bottle put about five cents worth of ferrocyanide of potash, and then fill it with water. All is now ready for making the Bordeaux mixture, but do not do it until the hour the spraying is to be done. The separate solutions may safely stand indefi nitely but when mixed they soon deterior ate by a chemical union that causes a precipitate.

Another very important point in making Bordeaux mixture is that the two mate rials should be diluted as much as possible before putting them together. When they are mixed in concentrated forms and then diluted they settle rapidly, but when di luted before mixing there will be very lit tle settling for several hours. No agita tion of the liquid will be required other than the motion of the tank or barrel in going from tree to tree while spraying. All being ready to do the work, put 40

gallons of water in a 50-gallon barrel, or, in about that proportion for a smaller or with first-class appliances. larger tank that may be used. Dip from the vessel containing the saturated copper solution two gallons, which will contain four pounds of sulphate of copper, and pour it into the 40 gallons of water. pour several gallons of water in the vessel containing the lime and stir it until milk white. Dip out two gallons of this liquid and pour it into the new mixture, stirring it rapidly, until it is all alike. Then drop little of the ferrocyanide solution from the bottle into the mixture and if any brown color appears add a little more lime and test again, and so on until there is no such color. Too much lime will do no harm but too little will permit the copper sulphate to injure the leaves. The barrel or tank may then be filled to the top with water and the spraying be done.

HOW AND WHEN TO SPRAY.

The first spraying should usually be done to kill the germs of fungus diseases on the eafless trees, in which case the Bordeaux nixture is about as good as anything. The next spraying should be with both the fungicide and insecticide mixed and sprayed together just as the buds are rinning to open. The third spraying for orchard trees should be given just after the apple, pear, cherry, plum, peach and quince are well done blooming. This one hould also have both of the mixtures applied at once, for they work together with out difficulty or harm. A large part of the odlin moth will be killed at this time, and the germs of several of the fungus diseases likewise. If the spraying is done thoroughy there will be little need for more than these three applications on orchard trees. There is little that can be done in checking fungus diseases after they begin to show their effects. It is then too late. The rusts, rots, mildews, scabs, etc., have taken deep root in the tissues and their deadly work is mainly done.

DISCOVERED BY A WOMAN. I have discovered a positive cure for all female diseases and the piles. It never fails to cure the piles from any cause or in either sex, or any of the diseases peculiar to women, such as leucorrhea, displacements, ulceration, granulation, etc. I will gladly mall a free box of the remedy to every sufferer. Address MRS. C. B. MILLER, Box 150, Kokomo, Ind.

Like a Weaver's Shuttle They come and go, and go, and come again. There are hundreds of them! A birds-eye view There are hundreds of them! A birds-eye view of that section of country between Cincinnati, Toledo, and Detroit, through which ply the numerous passenger trains of the C. H. & D. Railway, would equal in interest the most wonderful Kaleldoscope, or Biograph picture. When our Grandfathers wearlly walked the tow-path, and toted their own carnet-sacks

Cucumbers and Melons

and all vegetables are exceeding'y profitable if grown for the early market. Large yields and early maturity are certain to follow the judicious use of

Nitrate of Soda. For particulars and proofs write for free book to John A. Myers, 12-GJohn St., New York. Nitrate for sale by fer-

tilizer dealers everywhere. Write at once for List of Dealers Please Mention Green's Fruit Grower.

Thoughts of Spring.

Written for Green's Fruit Grower by I How gayly smiles the joyous spring! In moonlight mild, in sunny hours, The gallant god is whispering Soft nonsense to his darling flowers.

When Zephyr delights the land, To fairest Flora fondly breathes Entrancing lyrics, kisses bland, Or blooming May with garlands wrea

Then vales their yernal raiment don, And elegant the lawns appear, The shining hills are clothed upon With glory of the op'ning year.

Clear purl the rills! The streams are giad Since changing April's shine and shower The dusky earth with verdure clad, On velvet sward embroidered flowers.

As runs the wondrous weft in loom.
To weave earth's fairest garniture,
From fruit trees, beautiful with bloom,
The merry gales waft fragrance pure. Notes from the Nursery.

April 10, 1900.

Editor Green's Fruit Grower:

Our friends in distant States are prepar ing their fields for planting and are about ready for the stock already ordered. We have 85 men working for their interests here now. But the drawbacks are considerable this season so far. Snow and frost seem to rule. Still we are shipping several hundred packages daily for we have no time to sit down and wait for genial weather.

Our peach orchard has been sprayed with Bordeaux and bears a whitewashing appearance. We are in hopes that the leaf curl will object to this kind of treatment.

"The Apple and How to Grow It," by G. B. Brackett, pomologist, issued by the United States Department at Washington. is received and should be in the hands of very apple grower in the country. It gives a list of varieties best suited to the different States and is the most comprehensive and instructive little work that has ever come into our hands. Any one wanting it should apply to the Department of Agriculture at Washington and ask for the Farmer Bulletin No. 113.

Every tree is pruned and every bush trimmed ready for its summer work of growing or fruiting. Peach trees are show ing an abundance of good blossom buds, and generally speaking, we look for a good fruit year, as other fruit trees are show ing well.

March 26, 1900. To-day we are running two four-hors teams and hauling to the railroad many oxes and bales of freight and express addressed to those who needed their stock early. There are bare spots in some places and old banks of snow in others from two to five feet deep.

April 4, 1900. To-day two teamsters have returned with their teams, reporting their loads fast in the mud holes or snowbanks. This is "discouraging," as grandmother says, but nur-serymen expect little things like this to contend with and the only thing to do is to put the shoulder to the wheel and get out of it smilingly.-E. H. B.

Spray Pointers.

A Montreal correspondent of the Farm er's Advocate writes as follows With reference to spraying fruit trees would say: 1. I have sprayed six seasons-apple

and plums. 2. I use five pounds sulphate copper forty gallons water, five pounds lim five ounces Paris green. Spray three times each season, viz., first, before ssoms burst; second, after blossom

fall: third, ten days later. 3. The chief points to observe in pr paration of solution are: Carefulness in mixing and applying in calm weather,

4. The results are: (a) All trees spraye have a healthier appearance in trunk, limb and foliage. (b) Fruit is much more free from spot and fungous disease-full 75 per cent.—than in trees not sprayed (c) The destruction of foliage by much less; in fact, I was able to destroy millions of caterpillars last season with the Bordeaux mixture, using a much greater proportion of Paris green, however, and

5. The approved appearance of the sprayed fruit, or rather fruit from sprayed trees, commanded much greater prices in English market. A more profitable sale in consequence of spraying, equal to at least 50 per cent.

6. Trees in orchards which purposely left unsprayed bore unprofitable fruit, because smaller, and largely affected

by spot, etc. 7. All my results from spraying have been most satisfactory. It pays to spray

and to spray well and carefully.

Spraying for Insects and Blight.

The great increase of insects that destroy fruit, and of the not less injurious fungoid diseases that reach the same end by destroying foliage, compel the fruit growe who would make any success to resort to spraying as the best preventive of both evils. With no spraying there is certain to be no fruit except in seasons when the weather is so favorable that all the trees bear and the market is glutted with lowpriced fruit. This may sometimes happen where the injury is due to insect enemies that destroy the fruit. After a year when the fruit trees were barren these insects disappear from lack of any fruit on which to breed, and one, two or three years may elapse with comparative exemption from their ravages until like insects are im ported from other sections. Apples which contain the codling moth worm are often brought into localities where this pest has been starved because no apples were grown there the previous year in which to feed and breed. These apples are commonly placed in cellars, and in early spring as the worms emerge from the apple de veloped into codling moths they are often



treatment will immediately relieve and PER-MANENTLY CURE them, and all you are saked to de is to send for my FREE TREATMENT and try it. It will be sent in plain package "solutely free, and express prepaid. Has (UR 'D thousands. My Iliustrated Book, "Eph.psy Explained." FREE by mail. Please give name, AGE and full address. All correspondence professionally confidential.

W. H. MAY, M. D., New York City.

seen at cellar windows trying to escape to the outer air, where they can find blo and fruit in which to deposit their eggs.

If before cellar windows are opened in early spring all the moths were killed we should have far less trouble than now from the codling moth. If only a few escape from cellar windows they wait until the trees have blossomed, and then lay their eggs, which in due time develop into moths, and the pest soon becomes as plentiful as We believe that few which winter out of doors live until spring. They are destroyed by the birds which winter here, and which perform a most important service in killing off injurious insects at a time when it is impossible for them to escape.

Yet wherever the codling moth has be come plentiful spraying to destroy it be comes a necessity. This need not be done antil the apple blossoms are falling, and should be a dose of Paris green, which to prevent injuring of the tender leaves should be used with the Bordeaux mixture. If the leaves are very tender add more lime to the mixture, and reduce the amount of poison. It only needs the very smallest dose of poison to destroy the odling moth. It is probable that the moth inds it necessary to bite into the apple pefore depositing its egg, and in this way t secures the poison that ends its existence.

But with nearly all fruits the dangers from fungous diseases, such as blight, scab and rot of its various kinds, are far greater than from insects. Spraying with fungicides to destroy these is the most imporant work for the fruit grower, and it is also the work that must be done earliest, even before the buds have expanded into eaves. The sulphate of copper at the rate of one pound dissolved in twenty-five gallons of water is the right proportion for this early spraying. It destroys the spores that have wintered on the branches trees before they are propagated by the warmth of spring into activity, and spread by passing winds to all parts of the tree, ready to fasten on the first tender leaves that put forth. Many people put off spraying until the trees show the effects of blight. By that time a good deal of the injury that the fungus can do is alceady done, for the destruction of even a part of a leaf when it has been once made a early spring cannot be restored, and the leaf made to grow perfect all the season thereafter. We are learning that to maintain healthy

foliage on fruit trees is the surest way to ecure abundant and perfect fruit. The irst spraying with a strong solution of sulphate of copper is worth more to secure this than a dozen applications later in the season, though these should be made at brief intervals all through the season. It better not to wait until blight shows itself, though most fruit growers do this. Destroy the spores as rapidly as they form and before they have affected the leaves. In this way the spores that affect the fruit with rot will also be lessened. After the first application in spring lime must be used so as to keep the leaves from being burned by the copper sulphate mixture. It is best not to use it after the fruit begins to ripen, for it will injure its appearance and selling value, though the notion that the small amount of Bordeaux mixture that adheres to fruit makes it dangerous for people to eat it has been shown to be a great mistake. Few or no people eat the skins of fruit, especially if there be some coloring matter on the outside. It will always be wiped off before being put to the mouth.

While the use of insecticides and of fungicides involves much extra labor, it is much more than repaid by the increased crop and by saving the necessity of assorting the fruit before marketing it. The use of fungicides has made the growing of fruit a safe business, free from all risks except those of untimely frost, and in many places fruit growers have learned ways to guard against even this danger. We are fast coming to the time if it is not already here when the growing of firstand attended by even fewer risks than all other branches of farming. That will mean a greatly increased production of fruit, of such good quality that it will no longer be held for the few who can afford to pay higher prices, but it will be largely used as food by all with a corresponding advantage to the health of the people, few of whom use fruit as food to the extent that they should .- American Cultivator.

New Booklets.

The Chicago, Milwaukee & St. Paul Rail way is issuing a series of booklets regarding points of interest along its lines, and if you re interested in the western cou templating a trip, write George H. Heafford General Passenger Agent, Chicago, Ill., for the special publication desired, enclosing four

nesteral Passenger Agent, Chargo, All, for the special publication desired, enclosing four ents in stamps for postage for each one.

No. 1. The Pioneer Limited.

No. 2. The Land of Bread and Butter.

No. 3. The Fox Lake Country.

No. 4. Fishing in the Great North Woods.

No. 5. The Lake Superior Country.

No. 6. Cape Nome Gold Diggings.

No. 8. Summer Days in the Lake Country.

No. 9. Summer Homes, 1900.

No. 11. The Game of Skat.

No. 12. Milwaukee—The Convention City.

No. 13. A Farm in the Timber Country.

No. 14. Stock Raising in the Sunshine State.

No. 15. Hunting and Fishing.

Buggles on Approval.

No more liberal offer could possibly be made by any manufacturer than appears in the advertising of the Edward W. Walker Carriage Co., 'Goshen, Ind., elsewhere in this issue. A large book describing their goods and methods of pleasing customers will be sent free by the advertiser on request, if you mention seeing their offer in Green's Fruit Grower.

A Bicycle Free.

The Mead Cycle Co., of Chicago, is offering an up-to-date 1900 model bleycle to any person who will act as their agent. The employment is easy and consists of distributing 1,000 catalogues in your own town. This seems an easy way of getting a good wheel and if you want one and can give good references, write the Mead Cycle Co., Department 286, P., Chicago, Ill.

SCIENTIFIC AND PRACTICAL REASONS why the harrow, although it follows the plow, is a much more important implement Thus the selection and use of the harrow Thus the selection and use of the harrow is of greater moment than the choice and use of the plow. By Henry Stewart," is the subject of a very highly instructive and interesting article contained in the pamphlet and catalogue sent out by Duane H. Nash, of Millington, New Jersey. Mr. Stewart treats this subject in a masterly way and yet his writings are so plain and clear that every one of our readers can readily understand all of the points brought out in the article. The pamphlet will be sent FREE to all writing to Mr. Nash for it. Write while you have the opportunity, and read the article before spring's work commences.

Gives Satisfaction.

Milton, Wis., Nov. 29, 1898. In this letter I send you an order for \$3.00 to pay for two bottles of GOMBAULT'S CAUSTIC BALSAM, one bottle to be sent to Clarkson Heritage, Milton, Wis. I have used this remedy for several years and like it. I am sending for these two bottles for other received.

You will not get our new and enlarged catalogue this spring unless you send for it. This catalogue is more expensive than ordinary, and is too valuable to be sent unless we are sure you want it. GREEN'S NURSERY CO.

Peach Borers.

These are the worst enemy of the young peach trees, and they must be kept ou at whatever cost. A good wash may be made by dissolving in five gallons of hot water one pint of Carbolic Acid, one pint of Soft Soap or its equivalent in Alkali, one pint of Salt, and half a pint of Sulphur. Before the middle of May pour around the trunk of each tree, beginning about a foot above the ground, one pin of the mixture when warm. I have this wash for three years with good results, and find that it also improves the appearance of the tree. Before I began with this remedy it was necessary to dis around and examine each tree at least once a year. And we will have to return to this method if other remedies fail, for the borers must be kept out the first five or six years or they will ruin the trees. After that they will not do much harm .-New Jersey Horticultural Report.

York Imperial Apple.

The York Imperial is being so extensivegrown in New Jersey that it was idged expedient by the Executive Committee to insert a plate showing three distinct forms often occurring on the same tree, kindly loaned to us by the Pennsylvania Agricultural Experiment Station and to give a description of the apple as it appears in bulletin No. 43 of same station as follows: "York Imperial:-Sometimes listed in catalogues as Johnson's Fine Winter, and in its native county sometimes referred to as the Shep apple, Shep being a word of the Pennsylvania German having reference to the oblique shape of the fruit. The tree is a vigorous growe with slender, drooping branches after the manner of Ben Davis. It comes into bear ing at four years after planting, bears regularly and heavily. The foliage is remarkably free from scab. The fruit is of me dium size, oblong, angular, oblique, smooth skin yellow and almost wholly covered with two shades of red, the darker one disposed in indistinct stripes; basin deep; cavity deep and narrow, stem short; flesh yellow juicy, firm, sub-acid, good; season late winter, a good shipper, bringing high prices." Mr. DeCou: I think it is a mistake to speak of the Yorktown Imperial as a second variety. It sells second alone to Newtown Pippin in the English market.-New Jersey Horticultural Report.

Apple Culture Profitable.

In a general way I have faith in the profitableness of apple growing if rightly managed. It is a good time to plant apple trees, at least for the right man in the right place. The majority of orchards set thirty or forty years ago will have to go. The trees were set by far too close, and they will soon be useless, worthless, unless from two to three trees out of every four are cut down to make room for the remaining ones. Even that remedy will not help much in all cases. Severe prun ing and thorough spraying will have to be practiced in these orchards if satisfac tory results can be hoped for. Start young orchards, by all means, and be sure to se a block for the very purpose of grafting over, when five or more years old, to some of the new sorts that in the meantime will prove of especial merit. Don't imagine, however, that you can plant apple trees or any other fruit tree and have them give satisfactory crops if they are left to grow in sod, or if you sow wheat, rye or oats on the same ground. For a few years you may plant hoed crops mong the trees. I would prefer small fruits, especially strawberries: but manure and good tillage should never be withheld. When the trees begin to bear, let them have the exclusive use of the well. tilled soil, and you will have your reward in due time.-T. Greiner in Farm and Fire-

ultivation or no Cultivation for Orchards.

Professor Bailey writing in regard to the fruitfulness and success of this fruit in sod or under cultivation, says 'tis difficult to decide definitely as far as he has noticed, but his own opinion is to cultivate from the beginning for best results. He further "My own opinion is from an examsavs: ination of hundreds of instances of orchards in sod, that the greatest part of such orchards thrive in spite of the sod, not because of it-because an orchard does well in sod, does not prove that it might not do better in tillage. Tilled orchards tend to bear more continuously. The danger of does not apply to apple trees. The professor mentions a case at the Cornell grounds of an apple tree of the Stark variety planted ir 1890 in rich ground with good care which in 1899 was as large as most trees at twelve years, and had borne five consecutive years; in '96 it bore two barrels of first quality graded apples, in '97 nearly as many, in '98 it bore three barrels. He



price, so that the bargains offered by us should be taken advantage of by our customers.

Our stock of Silk Ribbons, from which we put up these 35-cent packages, consists of Crown Edge, Gros Grain, Moire, Picot Edge, Sain Edge, Silk Brocade, Striped Ottoman, and various other styles of Plain and Fancy Silk Ribbons suited to the wants of our lady friends.

We put up carefully assorted packages of these Ribbons, assorted colors. No remnants less than one yard long, and all first-class, useful goods.

We will send I package for 35 cents, silver, or 36 cents in 2-cent stamps. Carefully packed in boxes, postpaid, upon receipt of price. Address PARIS RIBBON CO., Box 3045, New York City, N. Y. Please Mention Green's Fruit Grower.

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Weak, delicate lungs are strengthened. the raw, inflamed surfaces healed, and the thin, nervous wreck is nourished and

The deadly consumptive bacilli are killed; in fact the whole system is built The Slocum New System of Treatmen cures when all other means have failed-

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Simply send your name, post-office and express address to Dr. T. A. Slocum, 93 Pine Street, New York, and the Four Preparations (The Slocum System) will forwarded, together with full direc-

Oblige the editor by mentioning that you read this in GREEN'S FRUIT GROWER.

Please Mention Green's Fruit Grower.

says the superiority of the American fruit, as a general market product, is due to a considerable degree to spraying and the and abundant bearer. The fruit American of all men should be the last to ask if spraying pays.

Mr. Willard, of New York, a prominent the Tetofsky, also a Russian variety horticulturist, says, "If I were young I which has proved to be a profitable apple would have the biggest apple orchard in The fruit is large, yellow, the state, if I had to borrow money to

secure it." When we consider the immense increase of our population in the United States since the Revolutionary period from 3,000, 000 to 75,000,000, the census of 1900 will probably show a gain of 12,000,000, and the many ways in which the apple is now used, and the shiploads exported to England and the continent, it would seem that without an increase in the setting of new orchards to take the place of those now too old to yield good fruit and crops, we are liable to fall short and fail to realize our share of prosperity. And again the tim necessary to bring the apple tree to its full fruition must be taken into account, and too rapid growth, as in peaches and grapes it is none too soon to begin to prepare the ground for, at least, future setting.

A Michigan Peach Orchard.

The orchard comprises 100 acres, and the crop this year is larger than ever be This season Mr. Morrill has marketed about 12,000 bushels of peaches, and the capacity of the orchard for next year will be 25,000 bushels. The crop this year has brought returns to the amount of \$25,000. Many of the peach trees this eason were so heavily loaded that the limbs, unable to bear the weight, bent to the ground, where they found support until the fruit was gathered. When the fruit was picked the trees straightened up again and no injury has been done to

Treatment of Asparagus.

In selecting asparagus roots it is well to confine the planting to the Palmetto and Argenteuil varieties, as they seem to re-sist the dreaded rust better than other kinds, having a powdery surface which does not favor the germination of the spores in damp weather. About 200 plants will be needed to supply an average nousehold with asparagus during the eason. The roots should be set in the oottom of a wide furrow, six to eight inches deep, and eighteen inches apart in the row. Fill in two or three inches of fine soil over the crowns. Later hoeings and cultivation will fill up the trench as fast as the shoots grow. It is a very good idea to make the rows of asparagus six feet apart, if more than one row is grown, as some temporary crop can be rown between for a season or two, and the necessary Fall cultivation and heavy manuring can be managed better in wide than narrow rows. Asparagus should have good care and two season's growth efore it is cut for the table but when once well established, it is good for 20 to 30 of the orchard ready when the oppoper specific proper moment comes to be sprinkled with maintained.

Some of the Best Apples to Grow.

I have had twenty years' experience in raising apples, and have found very few been frosted. In 1878 our first blooms at varieties that are worth planting. Some of the best are: For summer, Red June, until in May. We retard the blooming it in the carrier to the blooming it. which is the earliest of all. It is of medium size and a handsome red, the flesh is to clover, letting the second crop fall at an abundant bearer. After this comes the Yellow Transparent, which is a Russian. This is pronounced by all who have seen Field and Farm.

it to be the most valuable early ap good size, pale yellow, and the flavor

acid. After the Yellow Transparent com striped with red, and the flesh is whi Early Harvest is an old variety, but it always ready to bear every year. Astrakhan is also a good summer variet I have found the following autumn rieties good for both home and marks Maiden Blush, Duchess of Oldenbu Fameuse or Snow, and Rambo. winter varieties are Ben Davis, Salom Belle de Baskoop, Pewaukee, Lawye Rhode Island Greening, Grimes Golds McIntosh Red, Stark, Northern Spy, Wis

Burbank Japan Plum is a Wonder.

sap and Wealthy .- D. A. Blalock, in Am

Editor Green's Fruit Growers

ican Agriculturist.

We have two Burbank Japan plum to and they were a sight to behold last the People came miles to see them. They we my delight. You can not speak too high of that variety.—Mrs. A. E. L., landea, N. H.

Note: Burbank is one of the best of the (to us) new varieties. It is a favorite many parts of the country. Prof. Vi Deman says it is the best of all. It is fast grower, and our readers should of back the branches severely the first to years to keep it within bounds. Edit Fruit Grower.

Trouble with Pear Trees.

Editor Green's Fruit Growers I received a copy of Green's Fr Grower and I am well pleased with it. was reading it last night and I saw in co of its columns that Mrs. A. T. H., of Con don, Ky., was troubled with (as I ca. yellow fever in pear trees. The trouble not in the tree but in its roots.

The remedy is as follows: Take all the soil from the roots (take care not injure them), then spade some sod soil of them mixed with ashes and night soil as lime (not too much lime). Then the must be pruned a great deal, leaving oil a few of the best limbs. If the ground moist put ashes; often, if dry, put ma

Protection from May and June Frosts.

It is the business of the co chardists to guard against late sp frosts and in remarking on this subject F. Stephens says: "We have smudge straw, litter, coarse manure and anythin that will burn piled up in different part moment comes to be sprinkled with ken sene and set on fire. We usually have men stay up all night when there ger of frost and about 4 o'clock in morning they fire these smudges if ne sary, which causes a dense cloud of smi to fill the orchard and prevents the m ing sun from injuring fruit that may

They must upwards Who would keep al

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"My Heart Goes World Sai

OU

My heart goes round the However the winds may and searches with tears if For the love of long ag Goes round the world, sailing, with passion its pulse all round the world, roun In quest of the old love.

My heart goes round the w As ever in days gone b Did Fancy sail in her air. To the realms where tr Goes searching the cold w Wherever fond wish ma And calls through the length of the l

Calls to the sea that swer Till its billows roar with and calls to the wind-vexed That frowns on the train nd calls to the wind-vex That frowns on the tra ut never the sea gives b To the words that burn ad the mount uprears in Of the dole of vain desir

heart, around the wo My heart, around the working and worshiping Shail seek that love of the Till death shail the drea All round the world, round With patience that moc All round the world, round However the winds may —Mary E. Blanchard, in

Cure for Nervous Written for Green's

A lady subscriber to Grower asks the editor t nervous prostration, as would be recommended. Since I was a sufferer : nervous prostration abou is possible that I may be advice on this subject. confined to business, hav ditional affairs thrust up vious to the attack mention had been good, but I co formerly, often being dist of business, awakening is weary as though I had all night. I was irritable and easily disturbed by an wrong, all of which indilosing my vitality and ne So far as I am able to own experience, nervous a disease, but is caused by vitality than is possible to hment and rest. In oth lividual afflicted is bank physical and mental v me as when a per

al has expended s of money, or bank ng from nervous used up more brain pow power than has been acc fore they are in a sense h and body.

are well, but it is difficult health when you have once on suffering from ner should expect an immedia erson should immediately n living, and should resol after the moment arrives eeling comes on, which hose afflicted with this di o accomplish this end a on is necessary in the business. The work sho o that the patient can me; not only for a day ears. This is the step with the proper diet, and exercise as possible, and

ep, have enabled me fu Whereas, formerly I won nd often in the evening, isiness on my mind wh hen in bed, now I attend alf the day or perhaps ake a nap after dinner een of great help. I h et, learning definitely th with me and tends to build and eating that only. I have ng tea and coffee, not be absolute necessity, or not these drinks to excess, by

have been benefited by

I eat very little meat.

for breakfast or supper. have shredded wheat bi cracked wheat, granula; these at each meal, with cream. Then I eat an ap and at night. I have learn egg, taking one in the r afternoon. These are very can be taken by most dys difficulty, even to the ex more a day at intervals. I to two quarts of water dail glasses of water before by glass just before retiring at a glass of lemonade at ten o in the forenoon, and anothe of the afternoon. I have a wheel, and to walk as m There is nothing like fresh yous person. When my was at its height a half d unshine would give me have learned to play gam divert my mind from busin ares. The game I play is furnishes exercise as well To sum up in a word, rostration is caused by vitality than we possess, to cover is to accumulate more

we expend, thus laying up ity each hour and day. Serving Fruits a

"The hostess and the fa ught to work together in er courses, instead of le lled by fashion," said a a recent dinner ugh the hostess seemed such conversation, eve ily dinner to which this been invited, the others sted, and he was encourag

"The daily course dinner much of our ailments," eruptions and sin s of the face that are